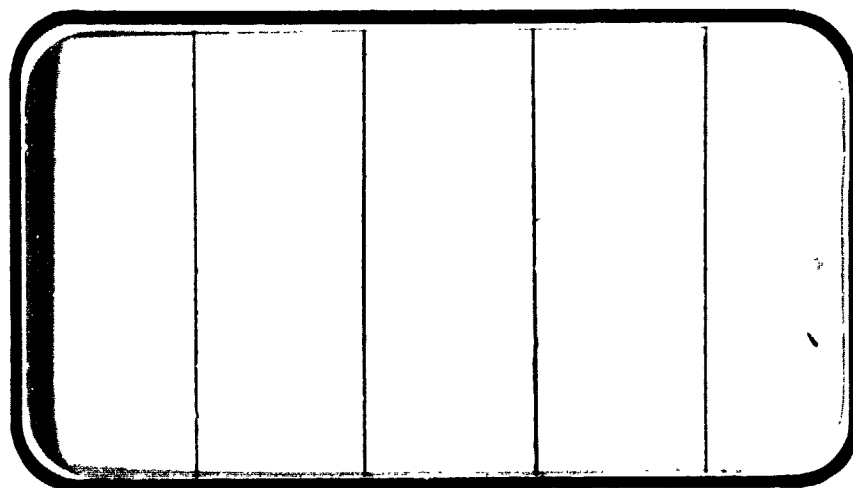


**NASA**

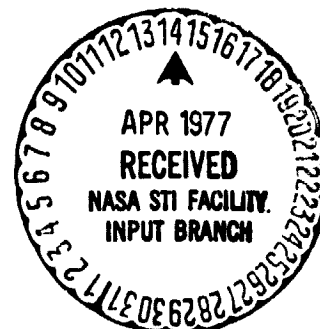
**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**



(NASA-CR-151061) TRANSONIC CONTROL  
EFFECTIVENESS FOR FULL AND PARTIAL SPAN HC A10/MF A01  
ELEVON CONFIGURATIONS ON A 0.0165 SCALE  
MODEL SPACE SHUTTLE ORBITER TESTED IN THE  
LARC 8-FOOT TRANSONIC WIND TUNNEL (Chrysler G3/16 22841  
N77-20146  
Unclas

**SPACE SHUTTLE**

**AEROTHERMODYNAMIC DATA REPORT**



**JOHNSON SPACE CENTER**

**HOUSTON, TEXAS**

**DATA Management services**

**SPACE DIVISION**



**CHRYSLER  
CORPORATION**

March 1977

DMS-DR-2184  
NASA CR-151,061 .

TRANSONIC CONTROL EFFECTIVENESS FOR FULL AND  
PARTIAL SPAN ELEVON CONFIGURATIONS ON A 0.0165  
SCALE MODEL SPACE SHUTTLE ORBITER TESTED IN THE  
LaRC 8-FOOT TRANSONIC PRESSURE TUNNEL (LA48)

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services  
Chrysler Corporation Michoud Defense-Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division  
  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Numbers: LARC 8' TPT 680  
NASA Series Numbers: LA48  
Model Number: 089B-139  
Test Dates: April 10 through 15, 1974  
Occupancy Hours: 48

FACILITY COORDINATOR:

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TRANSONIC CONTROL EFFECTIVENESS FOR FULL AND  
PARTIAL SPAN ELEVON CONFIGURATIONS ON A 0.0165  
SCALE MODEL SPACE SHUTTLE ORBITER TESTED IN THE  
LARC 8-FOOT TRANSONIC PRESSURE TUNNEL (LA48)

ABSTRACT

An experimental investigation has been conducted in the NASA-Langley Research Center 8-Foot Transonic Pressure Tunnel on an early version of the space shuttle orbiter (designated O89B-139) 0.0165 scale model to systematically determine both longitudinal and lateral control effectiveness associated with various combinations of inboard, outboard, and full span wing trailing edge controls. This report presents results from transonic investigations conducted from April 10 through 15, 1974. The test was conducted over a Mach number range from 0.6 to 1.08 at angles of attack from  $-2^{\circ}$  to  $23^{\circ}$  at  $0^{\circ}$  sideslip.

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SCHEDULE OF COEFFICIENTS:

- (A):  $CL$ ,  $CLM$ ,  $CD$ ,  $L/D$  versus  $\alpha$
- (B):  $CLM$ ,  $DCLMDE$ ,  $DCL/DE$ ,  $DCD/DE$  versus  $\alpha$
- (C):  $DCLMDE$ ,  $DCL/DE$ ,  $DCD/DE$  versus  $\alpha$
- (D):  $CY$ ,  $CYN$ ,  $CBL$  versus  $\alpha$
- (E):  $CBL$ ,  $CYN$ ,  $CY$  versus  $ELV-LO$  and  $DCBLDA$ ,  
 $DCYNDA$ ,  $DCY/DA$  versus  $\alpha$
- (F):  $DCBLDA$ ,  $DCYNDA$ ,  $DCY/DA$  versus  $\alpha$
- (G):  $DCMIDE$ ,  $DCLMDE$ ,  $DCMI/F$  versus  $MACH$



NOMENCLATURE  
General

<u>SYMBOL</u>	<u>MEMORIC</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C <sub>p</sub>	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; $V/a$
p		pressure; N/m <sup>2</sup> , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>

Reference & C.G. Definitions

A <sub>b</sub>		base area; m <sup>2</sup> , ft <sup>2</sup>
b	BREF	wing span or reference span; m, ft
b/2		wing semi-span
c.g.		center of gravity
$\frac{l_{REF}}{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
$\infty$	free stream

# NOVENCLATURE (Continued)

## Body-Axis System

<u>SYMBOL</u>	<u>MEMONIC</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
$C_m$	CIM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

## Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
$L/D$	L/D	lift-to-drag ratio; $C_L/C_D$
$L/D_f$	L/DF	lift to forebody drag ratio; $C_L/C_{D_f}$
$\delta_{SB}$	SPDBRK	speed brake deflection angle, deg.

# NOTATION (Concluded)

<u>SYMBOL</u>	<u>ABBREVIATION</u>	<u>DEFINITION</u>
$C_{D\delta_e}$	DCD/DE	Slope of drag coefficient vs. elevator deflection curve; $dC_D/d\delta_e$ , per degree
$C_{L\delta_e}$	DCL/DE	Slope of lift coefficient vs. elevator deflection curve; $dC_L/d\delta_e$ , per degree
$C_{L\delta_a}$	DCRL/DA	Slope of rolling moment coefficient vs. aileron deflection curve, $dC_{L_r}/d\delta_a$ , per degree
$C_{m\delta_e}$	DCM/DE	Slope of pitching moment coefficient vs. elevator deflection curve, $dC_m/d\delta_e$ , per degree
$C_{Y\delta_a}$	DCY/DA	Slope of side force coefficient vs. aileron deflection curve, $dC_Y/d\delta_a$ , per degree
$C_{n\delta_a}$	DCYN/DA	Slope of yawing moment coefficient vs. aileron deflection curve, $dC_n/d\delta_a$ , per degree
$\delta_a$	AILTRON	Aileron deflection angle; elevator deflection for roll control, $(\delta_{aL} - \delta_{aR})/2$ , positive deflection left panel trailing edge down
$\delta_e$	ELEVTR	Elevator deflection angle; elevator deflection for pitch control $(\delta_{eL} + \delta_{eR})/2$ , positive deflection trailing edge down
$\delta_{aL_o}$	ELV-LO	Left outboard elevator panel deflection, degrees
$\delta_{aL_i}$	ELV-LI	Left inboard elevator panel deflection, degrees
$\delta_{aR_i}$	ELV-RI	Right inboard elevator panel deflection, degrees
$\delta_{aR_o}$	ELV-RO	Right outboard elevator panel deflection, degrees
$C_{m\delta_{eI}}$	DCMID/I	Slope of pitching moment coefficient versus inboard elevator deflection curve, per degree
	DCM/I/F	Ratio of the slopes of the inboard elevator pitching moment curve over the full span elevator pitching moment curve
$\delta_{BF}$	BDFLAP	body flap deflection angle, deg.

## INTRODUCTION

A continuing effort to identify the most suitable space shuttle concept, and a study between Langley Research Center, Johnson Space Center, and Rockwell International has been undertaken to determine if the in-board operation of the four elevator surfaces of the orbiter could result in a more efficient use of available control power, reduced elevator deflections, and associated aerodynamic wing bending, to allow a more flexible flight profile without adverse control characteristics.

Therefore, an experimental investigation at subsonic and supersonic speeds was initiated at Langley to systematically determine both longitudinal and lateral control effectiveness associated with various configurations of inboard, outboard, and full span wing trailing edge controls for a shuttle orbiter configuration. Due to the unavailability of a current vehicle configuration, the model employed in this study was a 0.0157 scale earlier version of the orbiter designated by Rockwell International as configuration OGB-120. The differences between this configuration and the current design (vehicle 5) were not felt to be sufficient to alter the incremental effectiveness presented herein. This report presents the transonic results obtained in the overall study. Utilizing the Langley 8-Foot Transonic Pressure Tunnel, the Mach number range of the investigation was 0.60 to 1.03. Angle of attack was varied from about  $-4^\circ$  to as much as  $23^\circ$  at  $0^\circ$  of sideslip. Supersonic results are presented in the reference.

## CONFIGURATIONS INVESTIGATED

The configuration tested was a 0.0165 scale model of a blend of Rockwell International shuttle configurations consisting of a 089B configuration with a 139B configuration nose forward of fuselage station 500. A sketch and photographs of the model are shown in figures 2 and 3, respectively. Body base flap was fixed at  $0^\circ$  deflection.

Elevon controls were split at 0.60 b/2 giving the inboard and outboard segments approximately 53 percent and 47 percent of the total elevon area, respectively. The surfaces could be deflected in unison or as individual panels. Maximum range of deflection for each panel was from  $0^\circ$  to  $-40^\circ$ . Combinations tested included: for pitch control, inboards only, outboards only and full span; for roll control, outboards only with full span and inboard deflected for pitch control.

To expedite testing, the elevons were remotely controlled by four internal electric motors (see fig. 2c).

A complete description of model dimensional data is given in Table III.

### TEST CONDITIONS

The model was sting supported, with aerodynamic forces and moments measured by an internally mounted six-component strain gage balance. Model angle of attack was varied from about  $-2^\circ$  to as much as  $23^\circ$  for an angle of sideslip of  $0^\circ$ . Reynolds number was constant at a nominal  $3.0 \times 10^6$  per foot. Angle of attack has been corrected for deflection of the sting and balance under load.

Transition strips 0.063 inch wide composed of No. 120 sand grit were located 1.0 inch aft of the apex of the fuselage and 0.5 inch (measured streamwise) aft of the wing and fillet and vertical tail leading edges.

Drag data presented herein represent gross drag in that measured drag is uncorrected for base pressure effects.

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## TEST FACILITY DESCRIPTION

NASA/Langley Research Center 8-Foot Transonic Pressure Tunnel is an air-medium facility capable of attaining continuously variable Mach numbers from 0.20 to 1.30. It is a single-return, closed-circuit tunnel, having controlled stagnation temperature, total pressure, and dew-point temperature. The test section is 7.1 feet square. Reynolds numbers are variable from  $0.30 \times 10^6$  per foot to  $7.00 \times 10^6$ , depending on Mach number and tunnel total pressure limitations. Models are supported in the test section by a sting-sector system, but wall-mounting is possible. Schlieren photography is available for flow and shock-wave studies.

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## DATA REDUCTION

Data are recorded at the facility and reduced off-line at the LARC Computation Center. Longitudinal data are referred to the stability-axis system and lateral-directional data are referred to the body-axis system. All coefficients are normalized with respect to the projected wing area (excluding the fillet), mean aerodynamic chord or span, which are:

SREF = wing projected area = 0.732 Ft.<sup>2</sup>

LREF = wing mean aerodynamic chord = 7.834 in.

BREF = wing span = 15.45 in.

All data are presented along a set of body and stability axes (Figure 1) passing through the estimated forward center of gravity located at a full scale fuselage station of 1076.48 in. or 65% of the actual body length.

Elevon and aileron derivative data were computer-generated by the Chrysler DATAMAN-SADSAC Program and represent the local slope of the coefficient vs. control deflection at each value of angle of attack.

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REFERENCE

1. DMS-DR-2182, "SUPERSONIC CONTROL EFFECTIVENESS FOR FULL AND PARTIAL SPAN ELEVON CONFIGURATIONS ON A 0.0165 SCALE MODEL SPACE SHUTTLE ORBITER TESTED IN THE LARC UNITARY PLAN WIND TUNNEL (LA49)."

TABLE I

[illegible]

TABLE II

TEST : 8-TPT-680 (LA-48)

DATE : 5/30/74

DATA SET / RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )									
			$\alpha$	$\beta$	$\delta$	$\epsilon$		.60	.80	.85	.90	.92	.95	.98	1.08		
RH1001	0898 CREATER W/	A	0	0	0	0		71	61	51	41	31	21	11	1		
02	139 NOSE	T	0	-10	-10	0		72	62	52	42	32	22	12	2		
03	538-25° SEF=0	T	0	-20	-20	0		73	63	53	43	33	23	13	3		
04		T	0	-30	-30	0		74	64	54	44	34	24	14	4		
05		T	-10	-10	-10	-10		75	65	55	45	35	25	15	5		
06		T	-20	-20	-20	-20		76	66	56	46	36	26	16	6		
07		T	5	0	0	-5		77	67	57	47	37	27	17	7		
08		T	5	-20	-20	-5		78	68	58	48	38	28	18	8		
09		T	10	-20	-20	-10		79	69	59	49	39	29	19	9		
10		T	-15	-20	-20	-25		80	70	60	50	40	30	20	10		
11		T	-10	-20	-20	-30		96	93	92	89	88	85	84	81		
12		T	0	-10	-10	-20		95	94	91	90	87	86	83	82		
13		T	-10	0	0	-10		97									
14		T	-20	0	0	-20		98									
15		T	-30	0	0	-30		99									

TEST : 8-TPT-680 (LA-48)

DATE : 5/30/74

DATA SET / RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )									
			$\alpha$	$\beta$	$\delta$	$\epsilon$		.60	.80	.85	.90	.92	.95	.98	1.08		
RH1001	0898 CREATER W/	A	0	0	0	0		71	61	51	41	31	21	11	1		
02	139 NOSE	T	0	-10	-10	0		72	62	52	42	32	22	12	2		
03	538-25° SEF=0	T	0	-20	-20	0		73	63	53	43	33	23	13	3		
04		T	0	-30	-30	0		74	64	54	44	34	24	14	4		
05		T	-10	-10	-10	-10		75	65	55	45	35	25	15	5		
06		T	-20	-20	-20	-20		76	66	56	46	36	26	16	6		
07		T	5	0	0	-5		77	67	57	47	37	27	17	7		
08		T	5	-20	-20	-5		78	68	58	48	38	28	18	8		
09		T	10	-20	-20	-10		79	69	59	49	39	29	19	9		
10		T	-15	-20	-20	-25		80	70	60	50	40	30	20	10		
11		T	-10	-20	-20	-30		96	93	92	89	88	85	84	81		
12		T	0	-10	-10	-20		95	94	91	90	87	86	83	82		
13		T	-10	0	0	-10		97									
14																	

TABLE III  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - P20

GENERAL DESCRIPTION : 089B-139B (MODIFIED NOSE), NOSE SECTION FROM  
FULL-SCALE STATION 238, 0 TO STATION 500 FROM NAR DRAWING VL70-0001393.

REMAINING BODY AFT OF STATION 500 FROM NAR VL70-000023.

MODEL SCALE 0.0165

DRAWING NUMBER : VL70-000023, VL70-000139B

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length	<u>1290.3 IN.</u>	<u>21.090 IN.</u>
Max Width	<u>265.0</u>	<u>4.372 IN.</u>
Max Depth	<u>248.0</u>	<u>4.092 IN.</u>
Fineness Ratio	<u>4.069</u>	<u>4.960 IN.</u>
Area	<u>156.4000 SQ.FT.</u>	<u>17.8927 SQ.FT.</u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

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TABLE III (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP-FH

GENERAL DESCRIPTION : 079B-120

MODEL SCALE: 0.0165

DRAWING NUMBER : WFO-000001A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>84.700</u>	<u>1.398</u>
Max Width	<u>255.000</u>	<u>4.372</u>
Max Depth	<u>21.000</u>	<u>.346</u>
Fineness Ratio	<u></u>	<u></u>
Area	<u></u>	<u></u>
Max. Cross-Sectional	<u></u>	<u></u>
Planform	<u>142.6400</u>	<u>5.5921</u>
Wetted	<u></u>	<u></u>
Base	<u>38.6460</u>	<u>1.5151</u>

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TABLE III (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : ONE ROD - H<sup>14</sup>

GENERAL DESCRIPTION : 030B-132

MODEL SCALE: 0.0165

DRAWING NUMBER : VI.70-000024

DIMENSIONS :

FULL SCALE      MODEL SCALE

Length	<u>346.000</u>	<u>5.700</u>
Max Width	<u>108.000</u>	<u>1.782</u>
Max Depth	<u>113.800</u>	<u>1.873</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

ONE ROD CONCENTRATION

Z Axis Orbits	<u>463.900</u>	<u>7.654</u>
Y Axis Orbits	<u>80.000</u>	<u>1.320</u>

TABLE III (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT GLAZED TITAN (6-inch GAP) - E43

GENERAL DESCRIPTION Configuration 1404/B Orbiter elevon.

NOTE: E43 is a glazied version of E26. Data are for one side.

MODEL SCALE: 0.0165 MODEL DRAWING: SS-A00148

DRAWING NUMBER

DIMENSIONS :	FULL SCALE	MODEL SCALE
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.0572</u>
Span (equivalent) - In.	<u>342.2</u>	<u>5.760</u>
Inb'd equivalent chord - In.	<u>113.004</u>	<u>1.947</u>
Outb'd equivalent chord/ total surface chord	<u>55.192</u>	<u>0.9108</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2306</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4404</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>-10.056</u>	<u>-10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line)	<u>1587.25</u>	<u>0.00713</u>
Mean Aerodynamic Chord ( $\bar{c}$ ), in.	<u>20.7</u>	<u>1.4016</u>

TABLE III (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT PROTON - B5

GENERAL DESCRIPTION CONFIGURATION FOR LINES VL70-000095.

MODEL SCALE: 0.0165

DRAWING NUMBER VL70-000095

DIMENSIONS	FULL SCALE	MODEL SCALE
Area	<u>106.380 SQ.FT.</u>	<u>.0090 SQ.FT.</u>
Span (equivalent)	<u>201.00 IN.</u>	<u>3.32 IN.</u>
Inb'd equivalent chord	<u>21.585 IN.</u>	<u>1.51 IN.</u>
Outb'd equivalent chord	<u>50.833 IN.</u>	<u>.84 IN.</u>
Ratio movable surface chord/ total surface chord	<u>                    </u>	<u>                    </u>
At Inb'd equiv. chord	<u>.400</u>	<u>.400</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees	<u>                    </u>	<u>                    </u>
Leading Edge	<u>34.83</u>	<u>34.83 DEG.</u>
Trailing Edge	<u>26.25</u>	<u>26.25 DEG.</u>
Hingeline	<u>34.83</u>	<u>34.83 DEG.</u>
Area Moment (Normal to hinge line)	<u>526.1250 CU.FT.</u>	<u>4.0840 CU.IN.</u>



TABLE IIT (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : VERTICAL TAIL - V5

GENERAL DESCRIPTION CENTERLINE VERTICAL TAIL DOUBLE WEDGE AIRFOIL  
WITH ROUNDED LEADING EDGE.

MODEL SCALE: 0.0165

DRAWING NUMBER VL70-000025

DIMENSIONS	FULL SCALE	MODEL SCALE
Area	<u>413.2500 SQ. FT.</u>	<u>16.2011 SQ. IN.</u>
Span (equivalent)	<u>315.72</u>	<u>5.21</u> IN.
Inb'd equivalent chord	<u>268.50</u> IN.	<u>4.43</u> IN.
Outb'd equivalent chord	<u>108.47</u> IN.	<u>1.79</u> IN.
Ratio movable surface chord/ total surface chord	<u>                    </u>	<u>                    </u>
At Inb'd equiv. chord	<u>                    </u>	<u>                    </u>
At Outb'd equiv. chord	<u>                    </u>	<u>                    </u>
Sweep Back Angles, degrees	<u>                    </u>	<u>                    </u>
Leading Edge	<u>45.00</u> DEG.	<u>45.00</u> DEG.
Trailing Edge	<u>26.242</u> DEG.	<u>26.25</u> DEG.
Hingeline	<u>                    </u>	<u>                    </u>
Area Moment (Normal to hinge line)	<u>                    </u>	<u>                    </u>

TABLE III (Concluded)

MODEL COMPONENT: WING - 11.27

GENERAL DESCRIPTION: OPTIMUM CONFIGURATION PER LINES VL70-000023 (DIHEDRAL IS  
DEFINED AT THE LOWER SURFACE OF THE WING AT THE 75.33 PERCENT ELEMENT LINE PRO-  
JECTED INTO A PLANE PERPENDICULAR TO THE FUSELAGE REFERENCE LINE).

MODEL SCALE: - 0.0165DRAWING NUMBER: VL70-000023

DIMENSIONS: FULL-SCALE MODEL SCALE

TOTAL DATA

Area	2690.0000 SQ.FT.	105.4500 SQ.IN.
Planform		
Wetted		
Span (equivalent)	936.680 IN.	15.455 IN.
Aspect Ratio	2.055	2.055
Rate of Taper	1.177	1.177
Taper Ratio	.200	.200
Dihedral Angle, degrees	3.500 DEG.	3.500 DEG.
Incidence Angle, degrees	3.000 DEG.	3.000 DEG.
Aerodynamic Twist, degrees	3.000 DEG.	3.000 DEG.
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	45.000 DEG.	45.000 DEG.
Trailing Edge	-10.240 IN.	-10.240 DEG.
0.25 Element Line	35.209 DEG.	35.240 DEG.
Chords:		
Root (Wing Sta. 0.0)	580.24 IN.	11.27 IN.
Tip, (equivalent)	137.85 IN.	2.27 IN.
MAC	474.51 IN.	7.82 IN.
Fus. Sta. of .25 MAC	1137.00 IN.	18.77 IN.
W.P. of .25 MAC	299.13 IN.	3.01 IN.
B.L. of .25 MAC		
Airfoil Section		
Root		
Tip		

EXPOSED DATA

Area	1752.2000 SQ.FT.	68.6250 SQ.IN.
Span, (equivalent)	720.68 IN.	11.50 IN.
Aspect Ratio	2.058	2.058
Taper Ratio	.2451	.2451
Chords		
Root	562.40 IN.	9.22 IN.
Tip	137.85 IN.	2.27 IN.
MAC	393.03 IN.	6.42 IN.
Fus. Sta. of .25 MAC	1145.31 IN.	18.57 IN.
W.P. of .25 MAC	300.70 IN.	4.95 IN.
B.L. of .25 MAC	143.75 IN.	2.37 IN.

# Notes

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

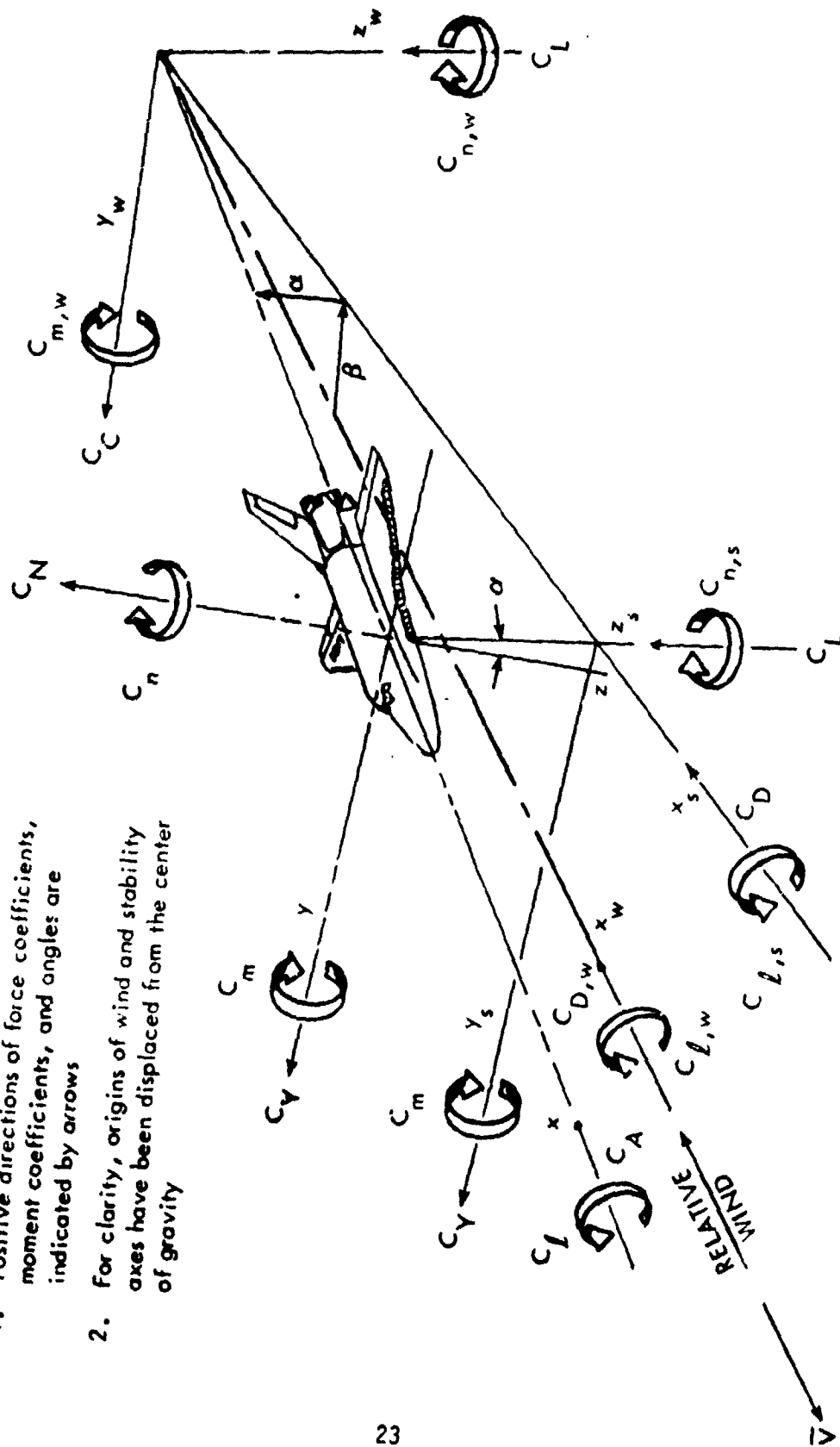
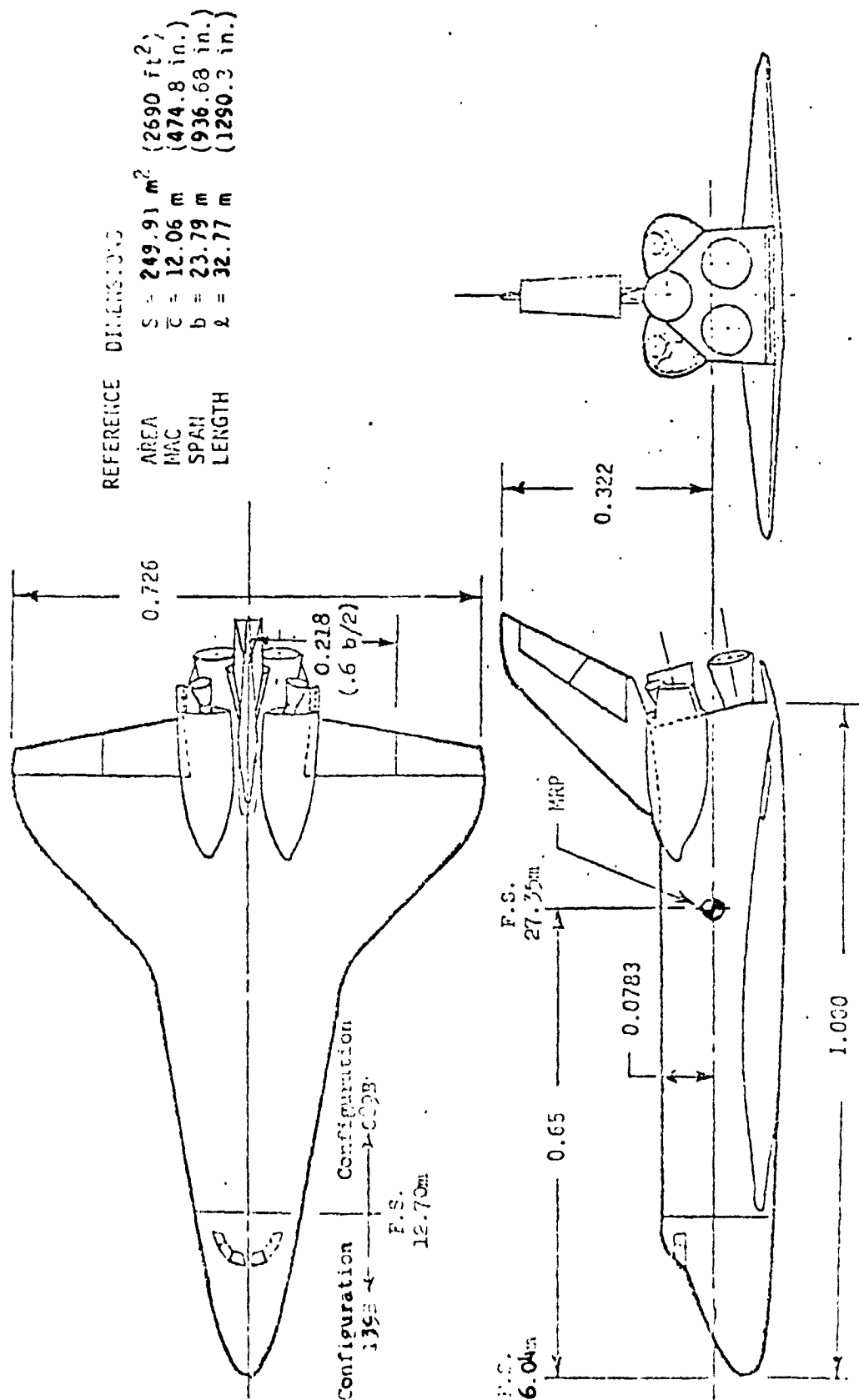


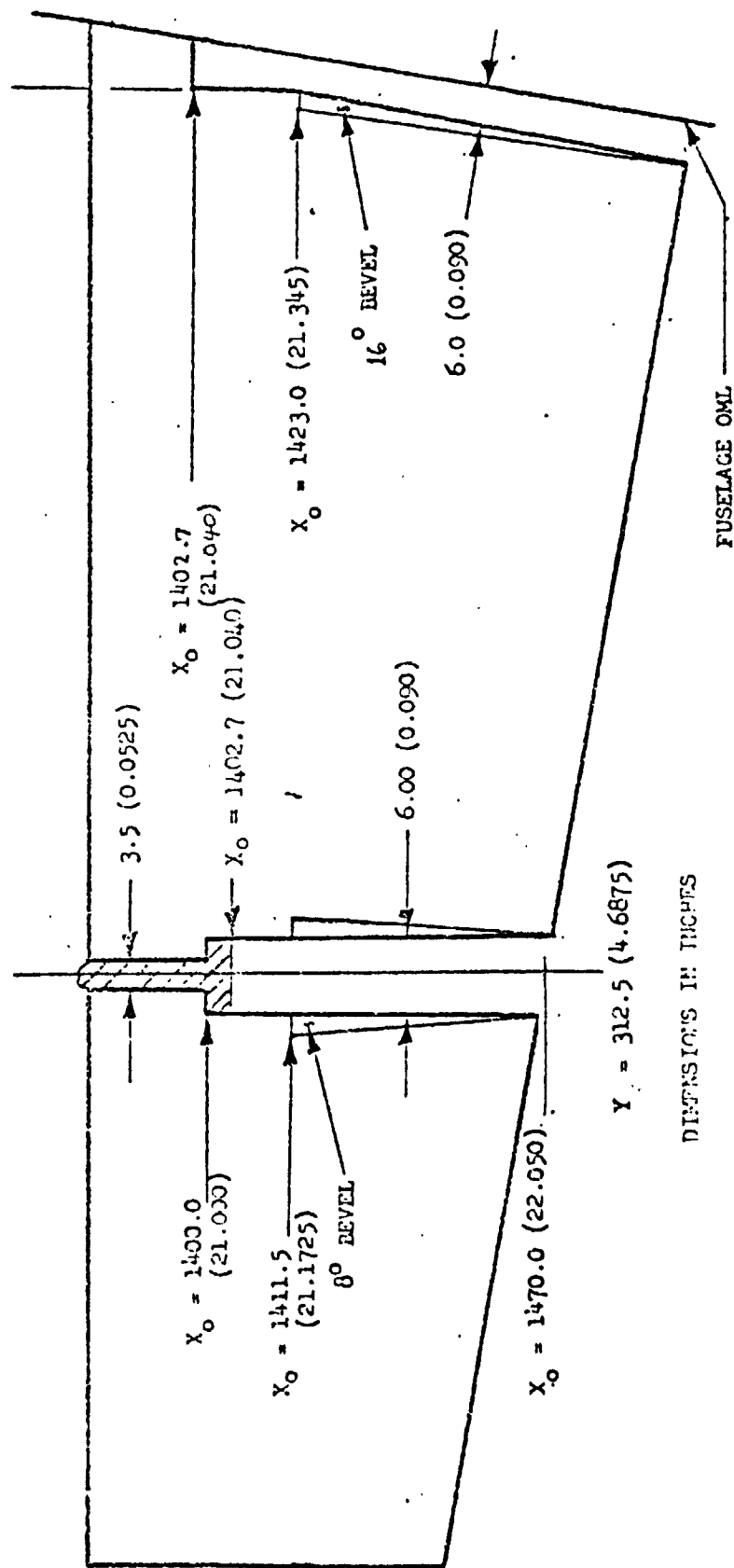
Figure 1. Axis Systems



a. SSV Orbiter Configuration  
Figure 2. - Model Sketches

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OF POOR QUALITY

Y = 128.50 (1.928)



Y = 312.5 (4.6875)

DIMENSIONS IN INCHES

b. Slotted Floor - 243 (6 inch gap)

Figure 2. - Continued



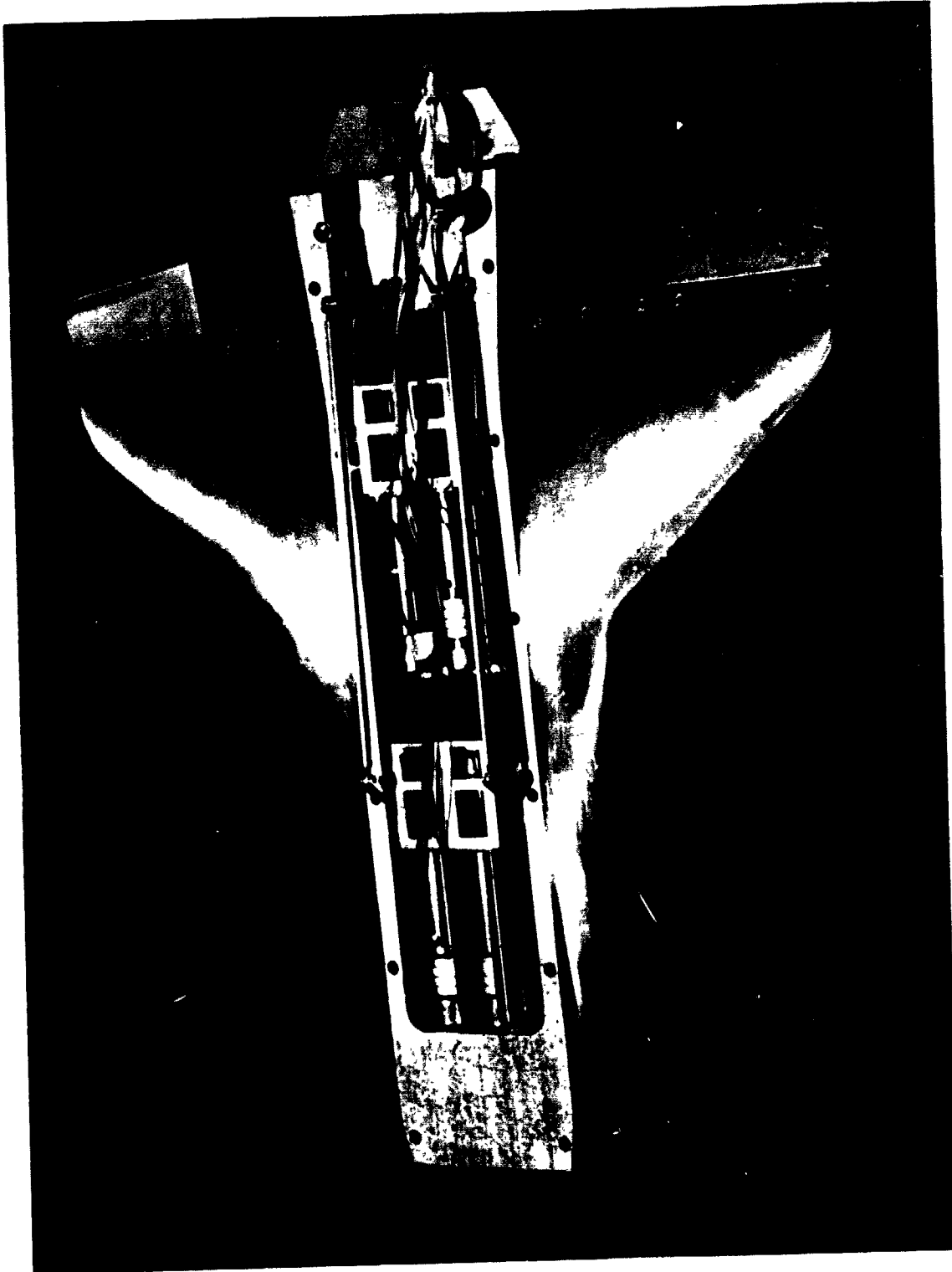
a. Orbiter Configuration, Front, 3/4 View  
Figure 3. - Model Photographs

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b. Orbiter Configuration, Rear, 3/4 View  
Figure 3. - Continued

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OF POOR QUALITY



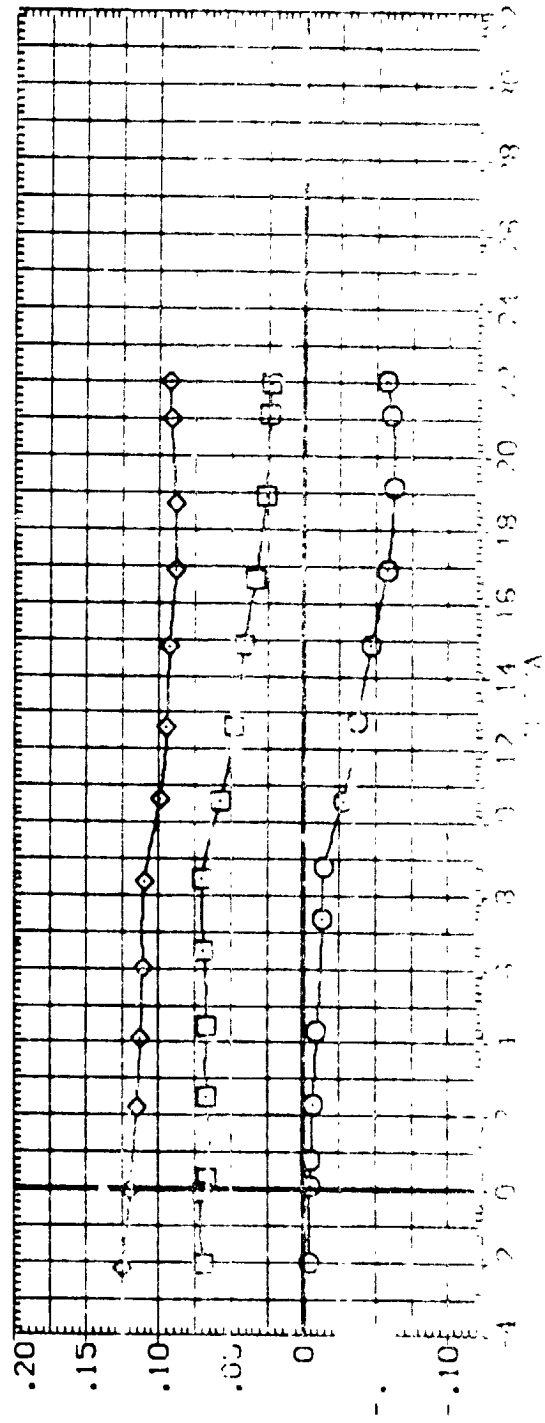
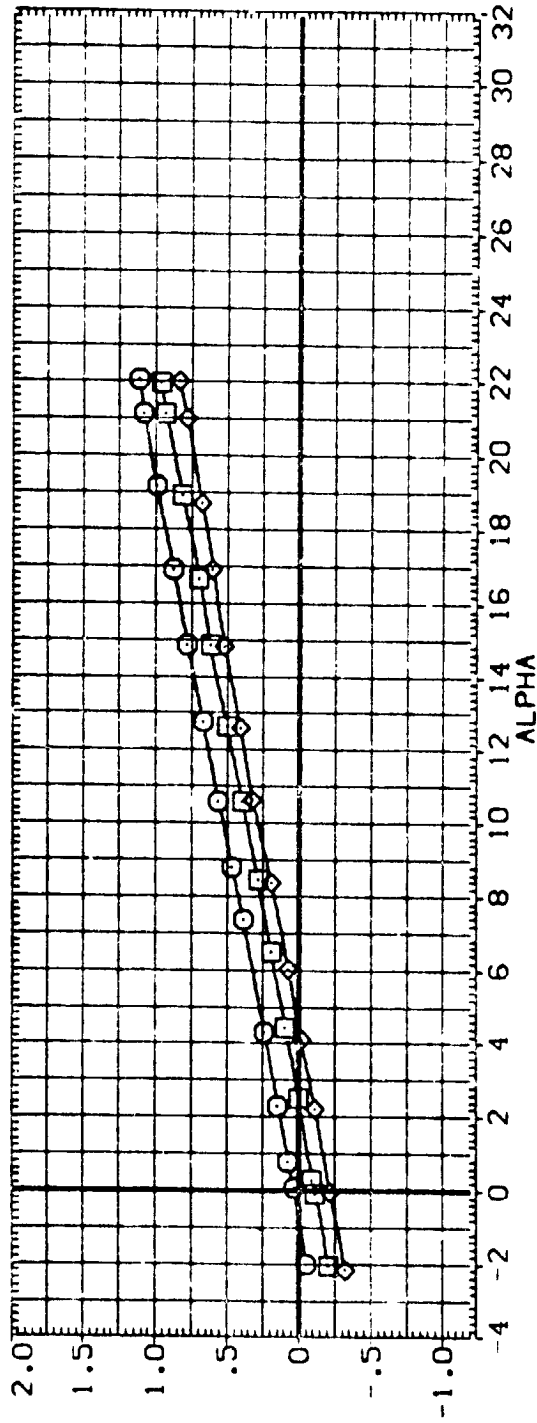
c. View of Elevon Drive Motors  
Figure 3. - Concluded



DATA FIGURES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(A11001)	LA-48 8-FT IPT 680 RI-0898/139 OR8 SPLIT ELEVON	.000	.000	.000	.000
(A11005)	LA-49 8-FT IPT 680 RI-0898/139 OR8 SPLIT ELEVON	-10.000	-10.000	-10.000	-10.000
(A11006)	LA-18 8-FT IPT 680 RI-0898/139 OR8 SPLIT ELEVON	-20.000	-20.000	-20.000	-20.000



CLM vs ALPHA

DATA SET SYMBOL. CONFIGURATION DESCRIPTION

LA-48 8-FT IPT 580 RI -0898/139	038 SPL 17 ELEVON	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(AH1001)		.000	.000	.000	.000
(AH1005)		-10.000	-10.000	-10.000	-10.000
(AH1006)		-20.000	-20.000	-20.000	-20.000

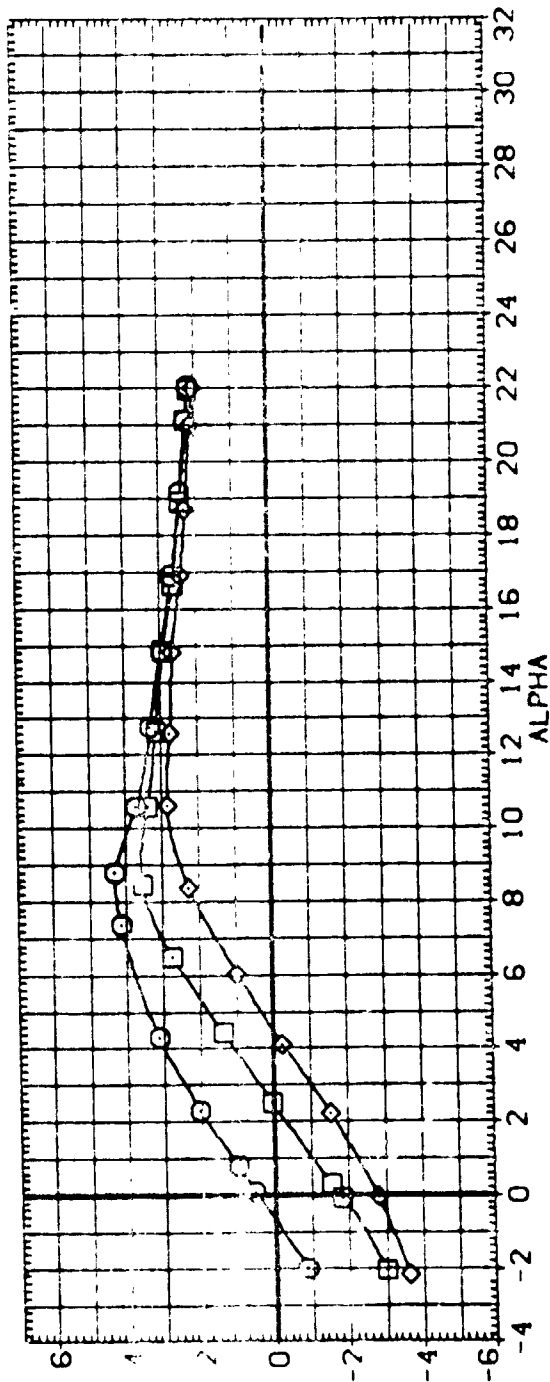
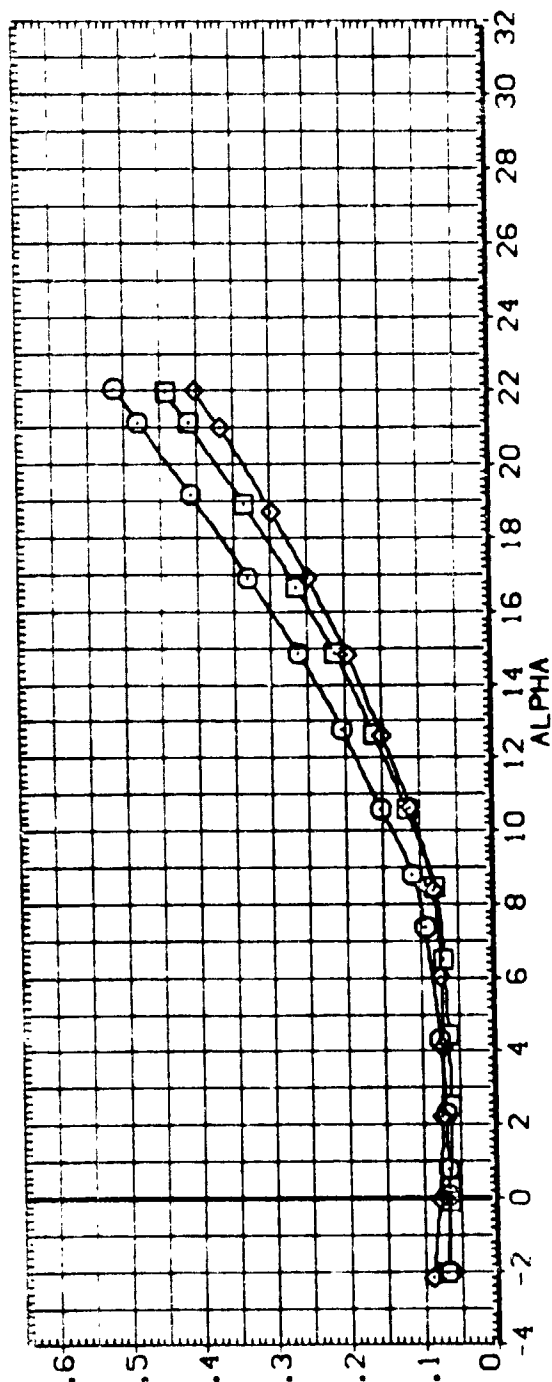
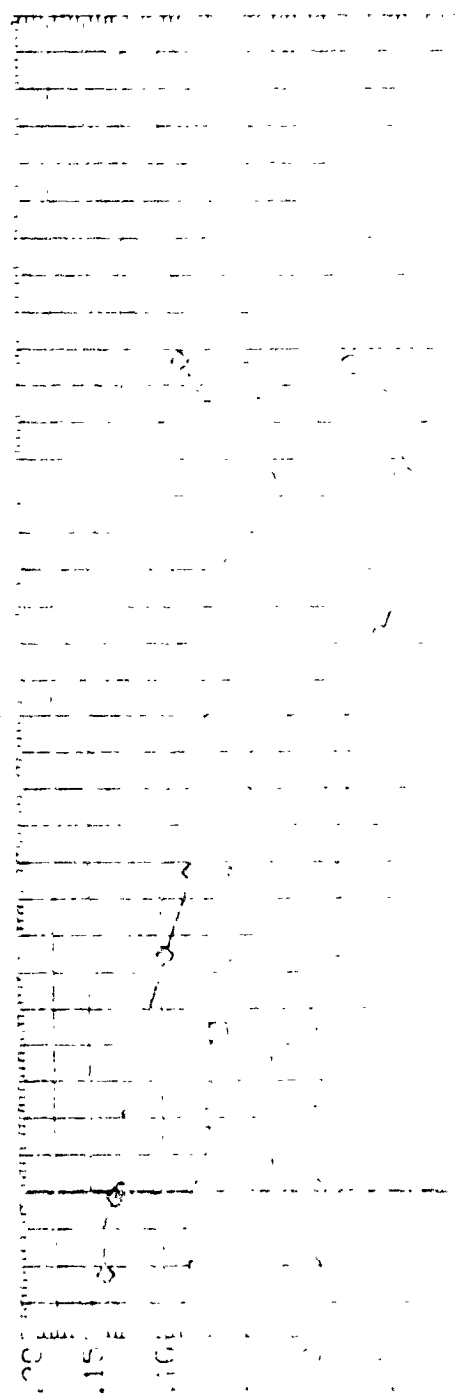
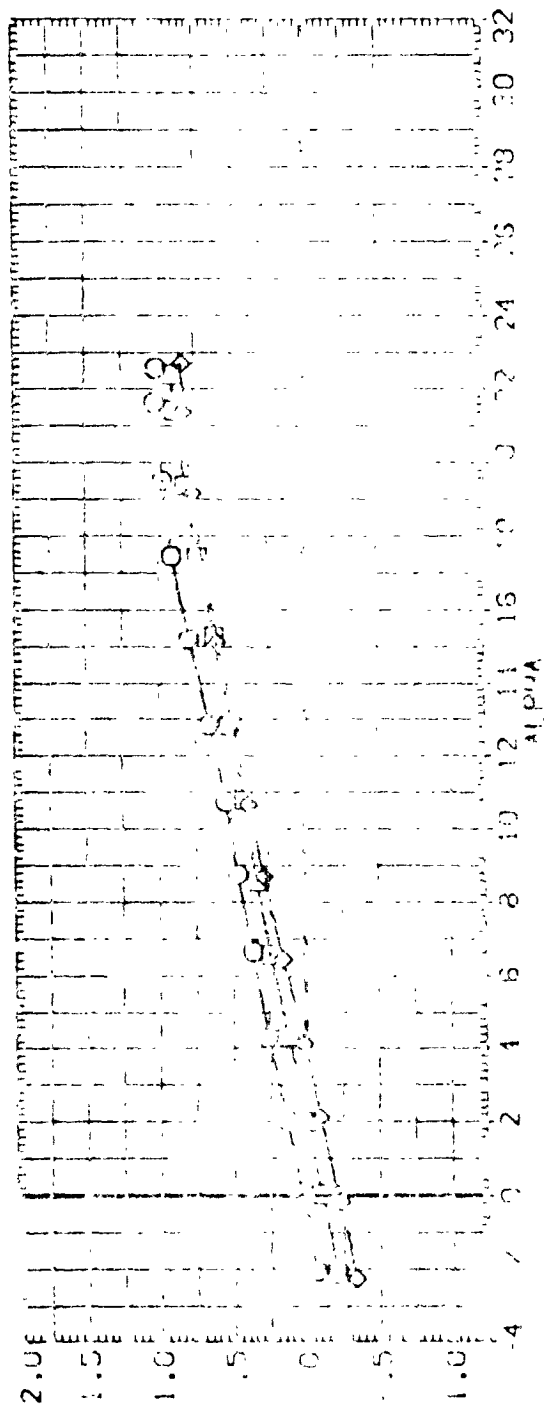


FIGURE 4. FULL SPAN ELEVON PITCH CHARACTERISTICS

(A)MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(AH1001)	LA-49 8-FT TPT 800 RI-0898/135	0.000	0.000	0.000	0.000
(AH1005)	LA-13 8-FT TPT 800 RI-0898/135	-10.000	-10.000	-10.000	-10.000
(AH1006)	LA-49 8-FT TPT 800 RI-0898/135	-20.000	-20.000	-20.000	-20.000



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEV-LO    ELEV-HI    ELEV-RO

(A)10011    LA-18 9-FT TPT 680 RI-0898/139 D88 SPL IT ELEVON    -10.000    -0.000    -2.000

(A)10015    LA-18 9-FT TPT 680 RI-0898/139 D88 SPL IT ELEVON    -10.000    -10.000    -10.000

(A)10015    LA-18 9-FT TPT 680 RI-0898/139 D88 SPL IT ELEVON    -20.000    -20.000    -20.000

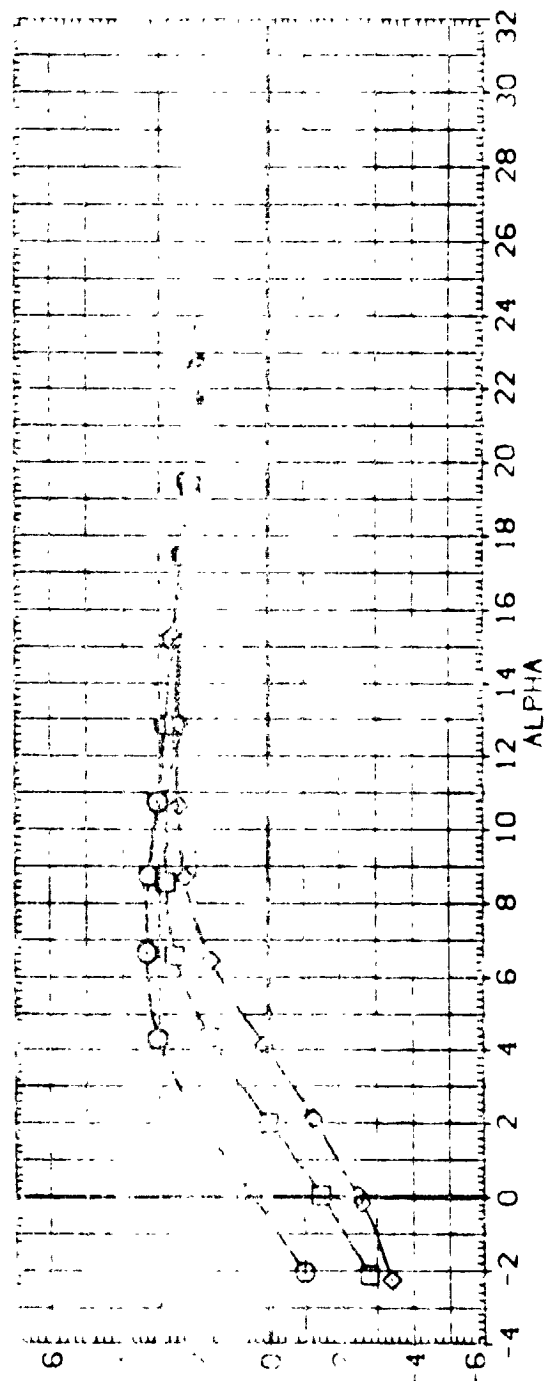
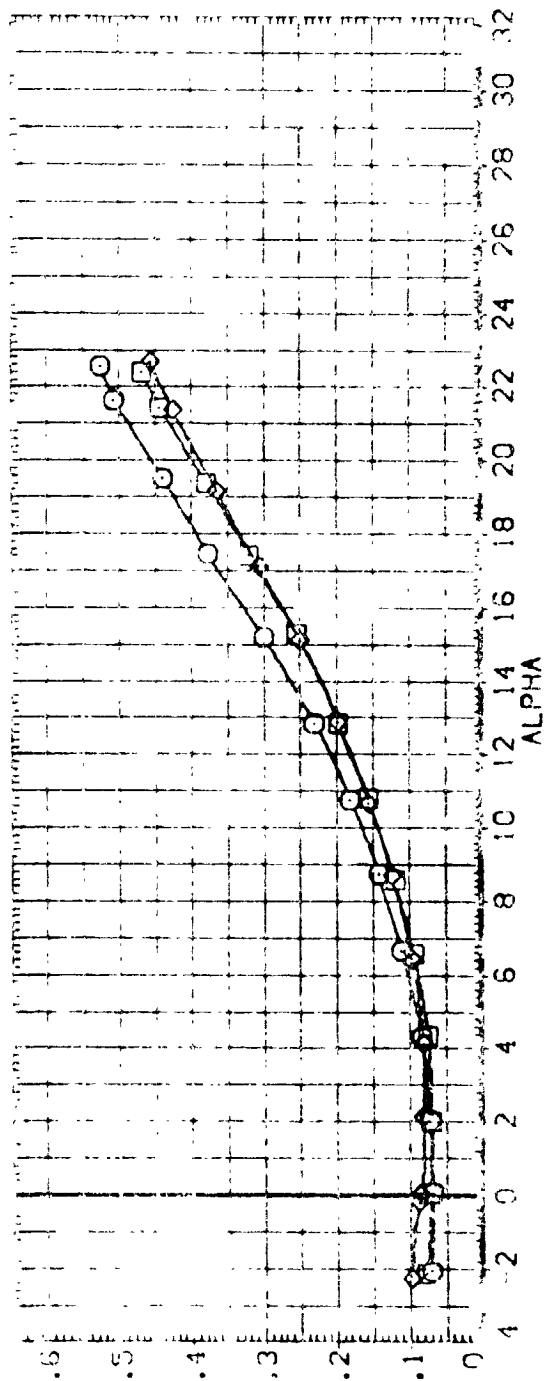


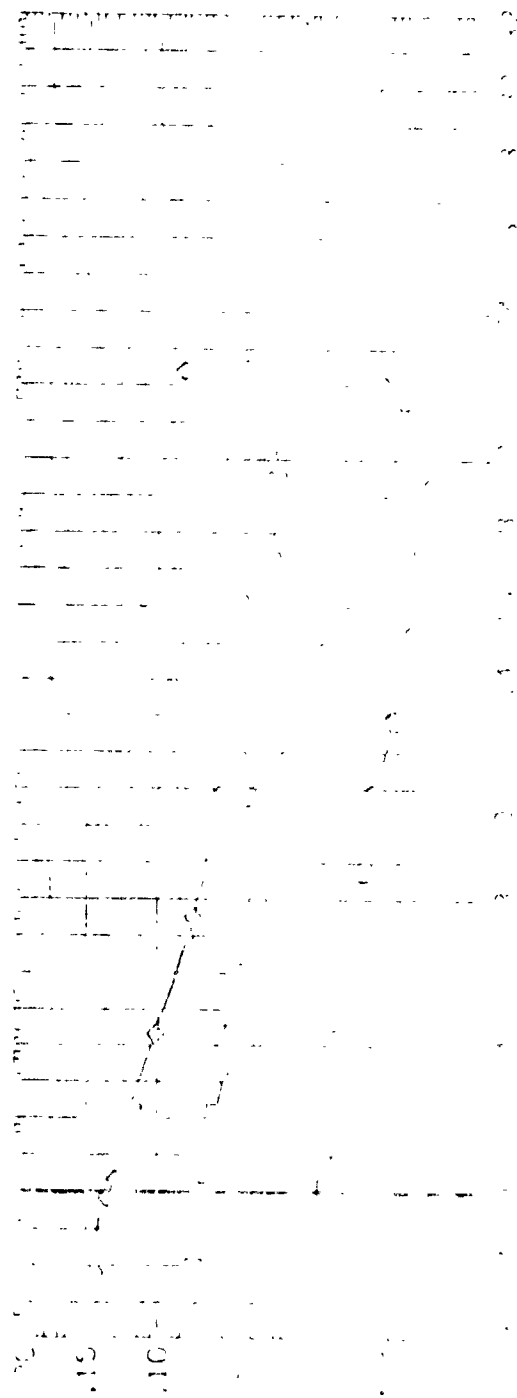
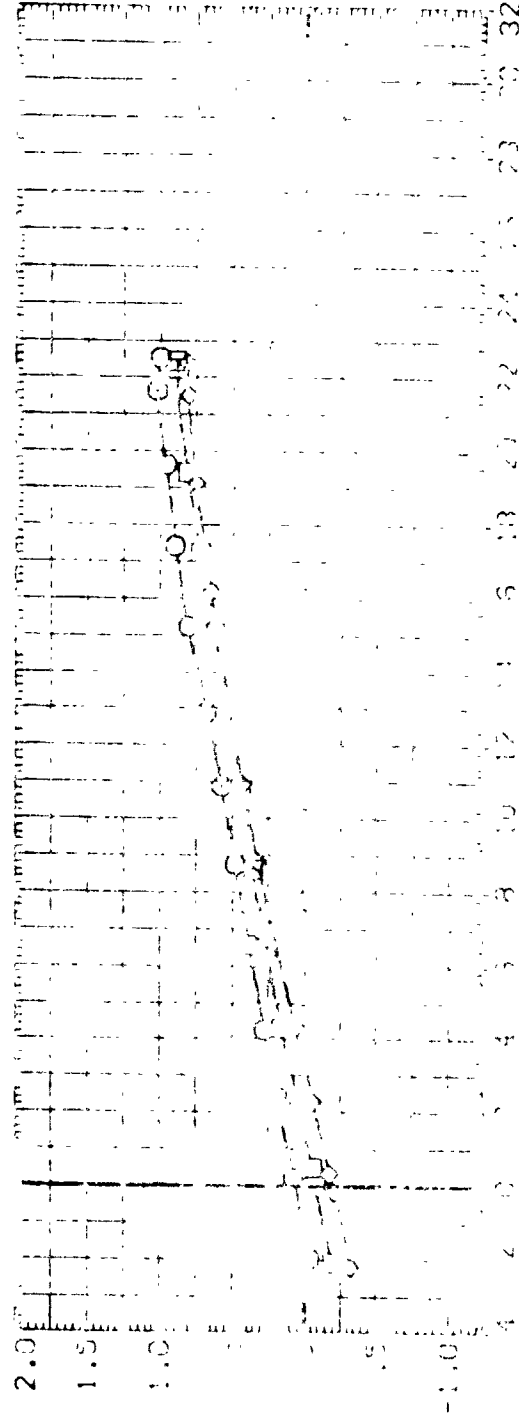
FIGURE 4. FULL SPAN ELEVON PITCH CHARACTERISTICS

(B)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION

LA-48 8-ET 12T 680 RI-0888/128 088 SPLIT ELEVON  
 LA-48 8-ET 12T 680 RI-0888/128 088 SPLIT ELEVON  
 LA-48 8-ET 12T 680 RI-0888/128 088 SPLIT ELEVON

ELV-LO ELV-LI ELV-RI ELV-RO  
 .000 .000 .000 .000  
 -10.000 -10.000 -10.000 -10.000  
 -20.000 -20.000 -20.000 -20.000



LA-48 8-ET 12T 680 RI-0888/128 088 SPLIT ELEVON

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (A11001) LA-48 8-FT IPT 880 RI-0858/138 048 SP-11 ELEVON  
 (A11005) LA-48 8-FT IPT 880 RI-0858/138 048 SP-11 ELEVON  
 (A11006) LA-48 8-FT IPT 880 RI-0858/138 048 SP-11 ELEVON

ELEV-00 ELEV-01 ELEV-02 ELEV-03 ELEV-04 ELEV-05 ELEV-06 ELEV-07 ELEV-08 ELEV-09 ELEV-10 ELEV-11 ELEV-12 ELEV-13 ELEV-14 ELEV-15 ELEV-16 ELEV-17 ELEV-18 ELEV-19 ELEV-20 ELEV-21 ELEV-22 ELEV-23 ELEV-24 ELEV-25 ELEV-26 ELEV-27 ELEV-28 ELEV-29 ELEV-30 ELEV-31 ELEV-32

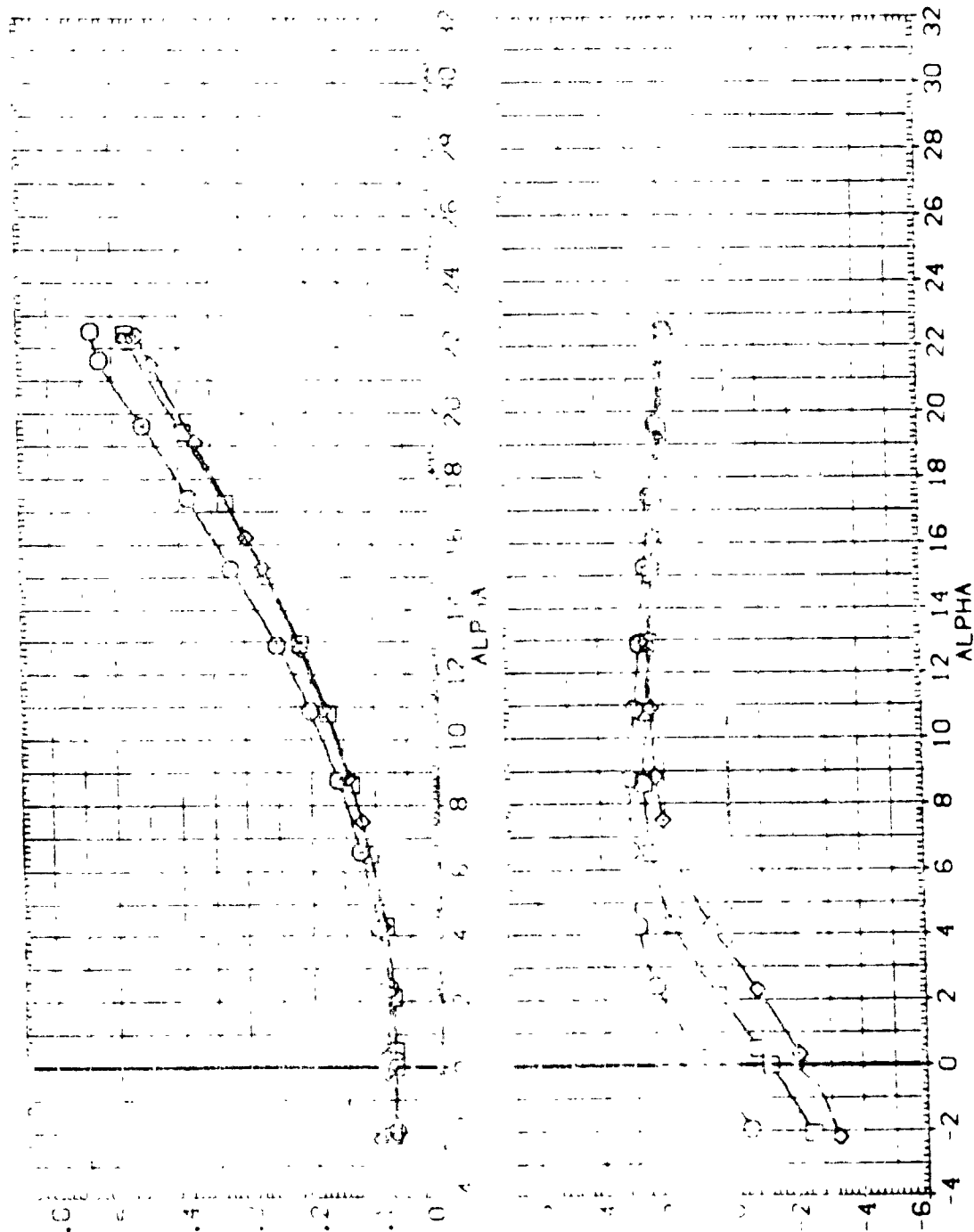


FIGURE 4. FULL SPAN ELEVON PITCH CHARACTERISTICS

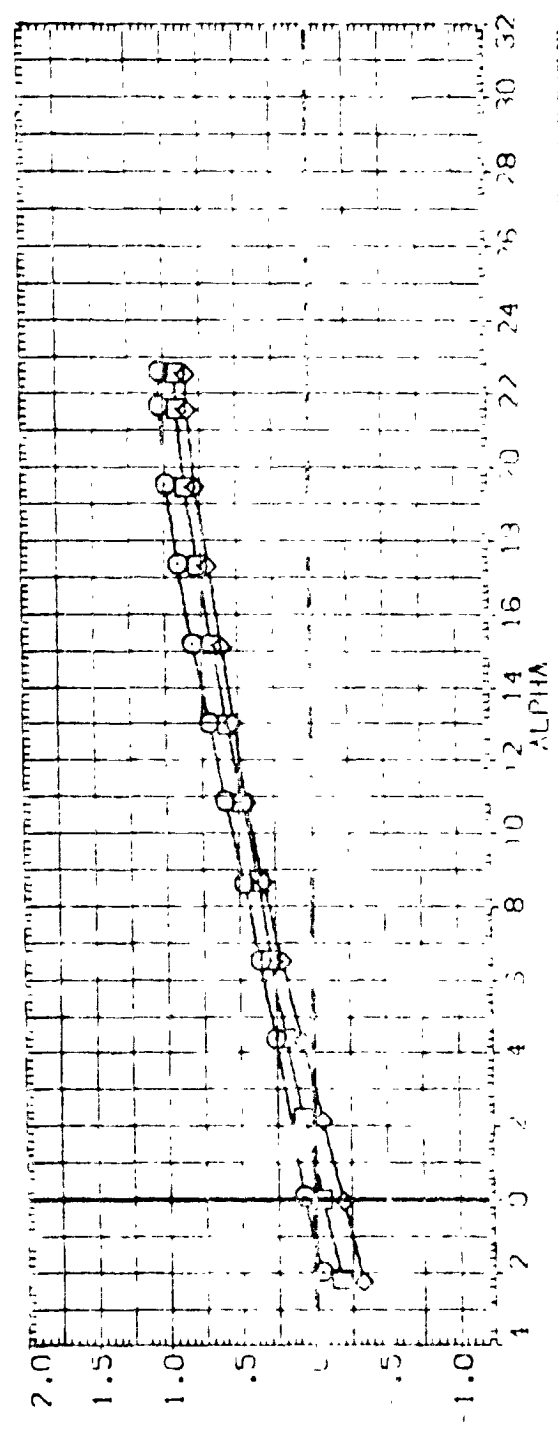
(C)MACH = .85

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0

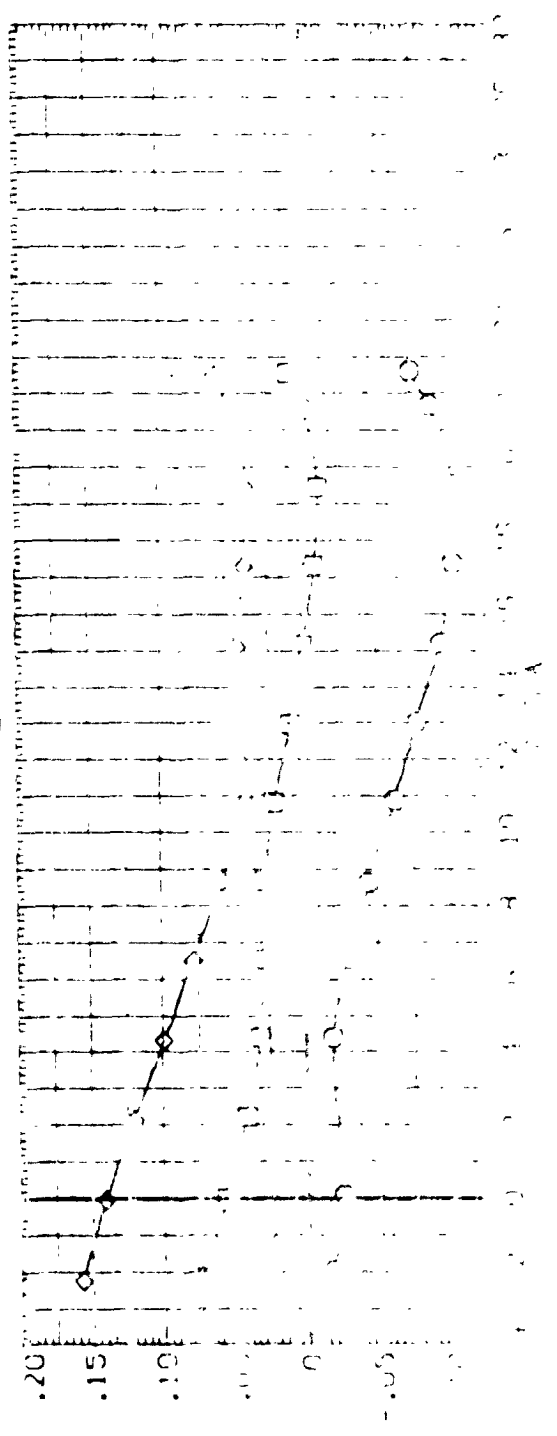
(A41001)    LA-48 8-FT 1ST 680 RI-0688/139    083 SPL IT ELEVON    .000    .000    .000    .000

(A41005)    LA-48 8-FT 1ST 680 RI-0688/139    083 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

(A41006)    LA-48 8-FT 1ST 680 RI-0688/139    083 SPL IT ELEVON    -20.000    -20.000    -20.000    -20.000



CL



CM

CL vs ALPHA (0, -10, -20 DEGS)

CM vs ALPHA (0, -10, -20 DEGS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	FLY-TO	FLY-RI	FLY-TO	FLY-RI
1001	1A 1-FT 1PT 680 RI-0982/128	000	000	000	000
1005	1B 1-FT 1PT 680 RI-0982/128	000	000	000	000
1006	1C 1-FT 1PT 680 RI-0982/128	000	000	000	000

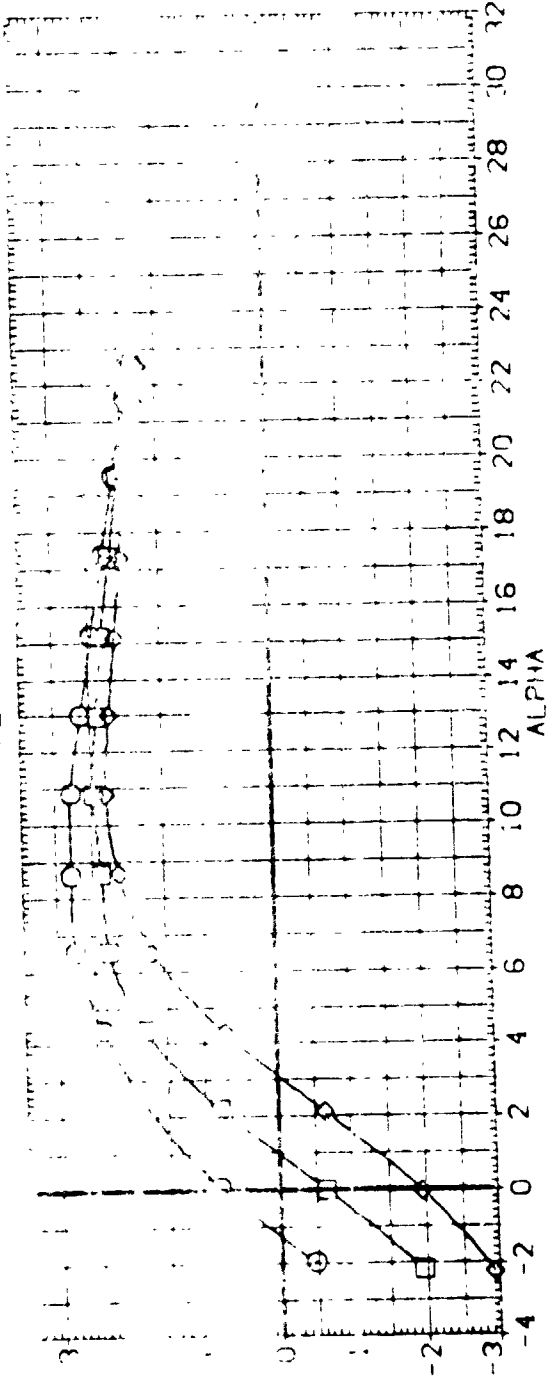
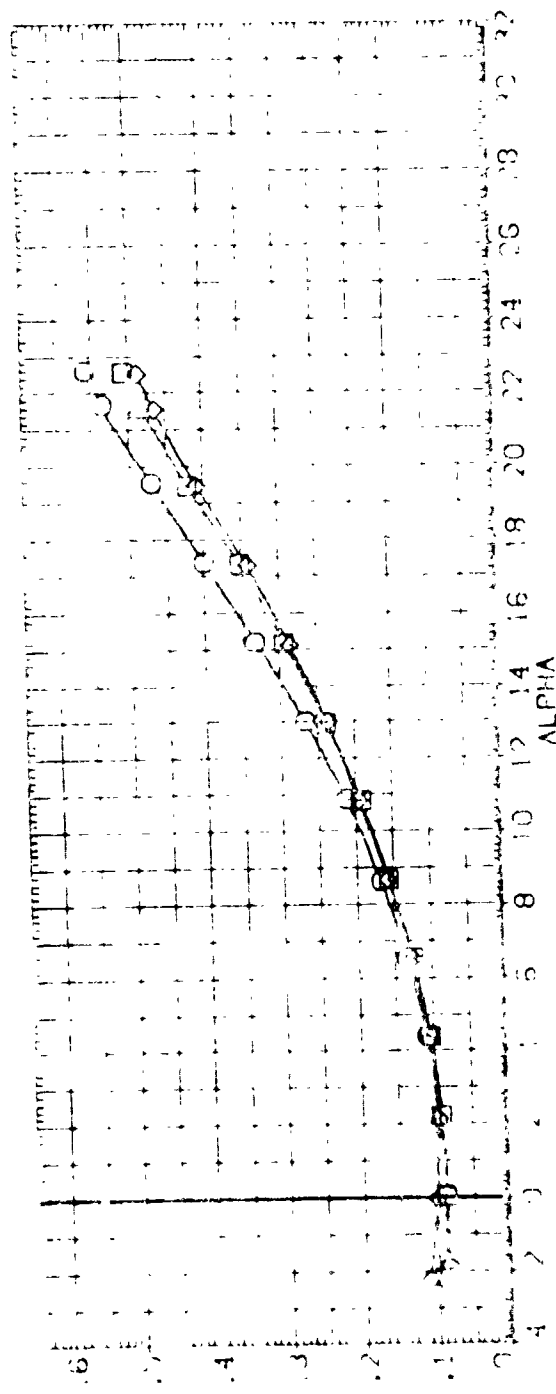


FIGURE 4. FULL SPAN ELEVEN PITCH CHARACTERISTICS

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{D)MACH = .90
```

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0

(AH1001)    LA-18 8-FT TPT 660 RI-0668/139 078 SPL IT ELEVON    .000    .000    .000    .000

(AH1005)    LA-19 8-FT TPT 660 RI-0668/139 078 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

(AH1006)    LA-18 8-FT TPT 660 RI-0668/139 078 SPL IT ELEVON    -20.000    -20.000    -20.000    -20.000

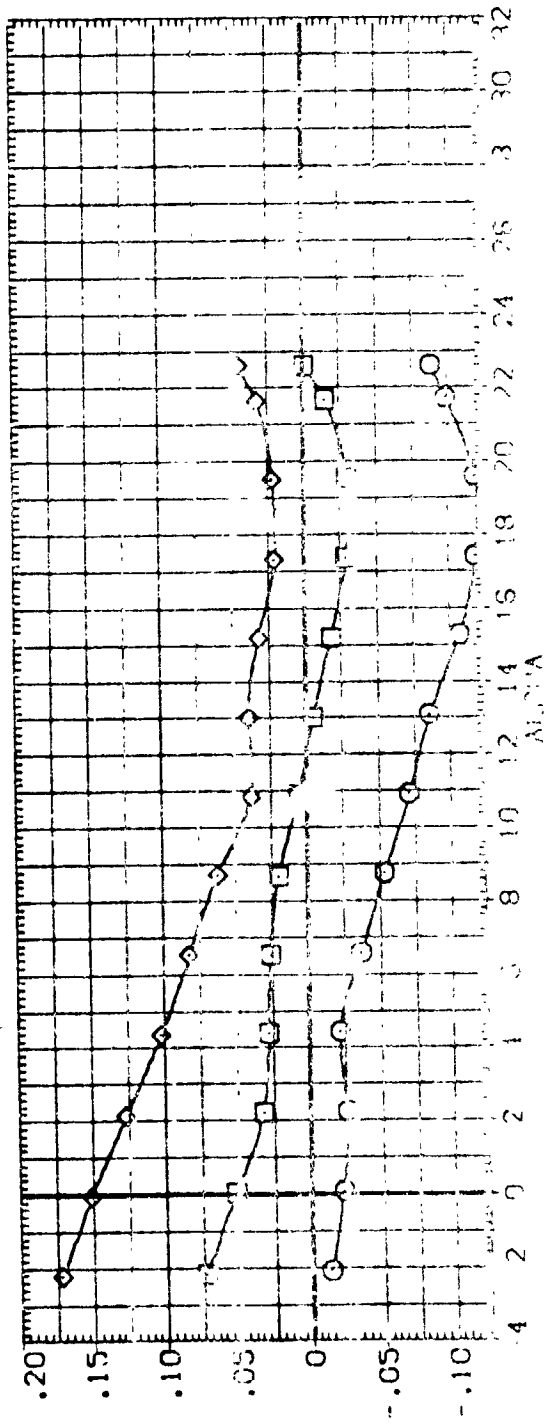
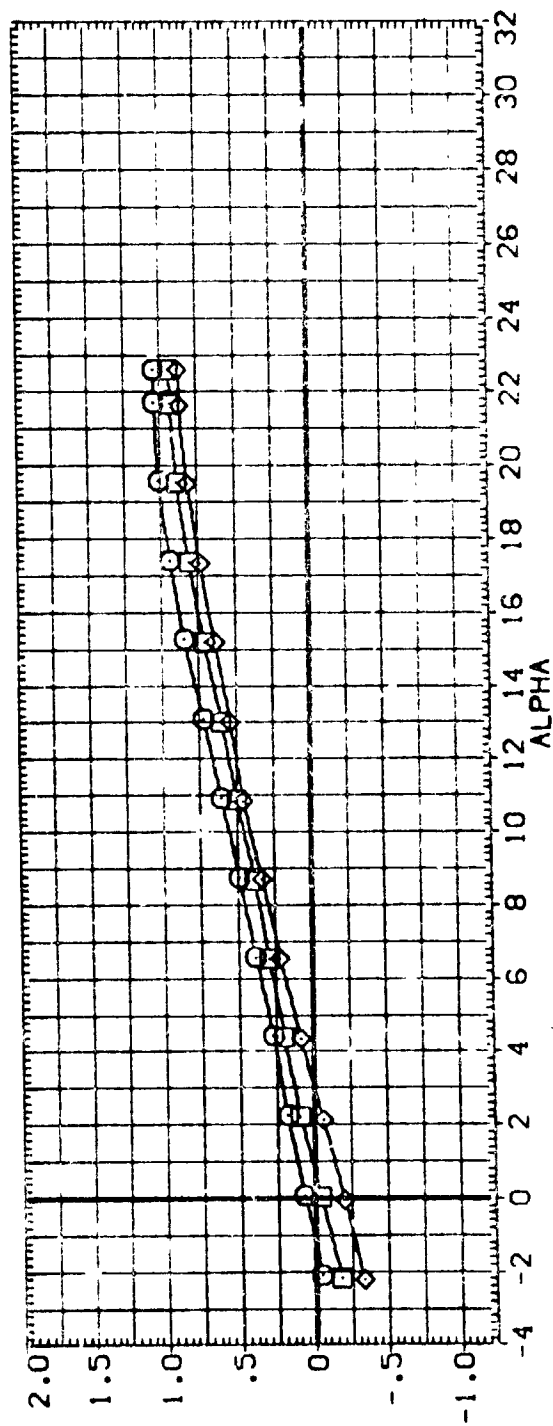


FIGURE 4.1 CL AND CLM vs ALPHA FOR EACH CHARACTERISTICS

DATA SET SYMBOL: CONFIGURATION DESCRIPTION

ELV-L0	ELV-L1	ELV-R1	ELV-R0
0.00	0.00	0.00	0.00
10.000	10.000	10.000	10.000
-20.000	-20.000	-20.000	-20.000

LA-48 8-ET 1PT 690 R] 058 SPLT ELEVON  
 LA-48 8-ET 1PT 690 R] 058 SPLT ELEVON  
 LA-48 8-ET 1PT 690 R] 058 SPLT ELEVON

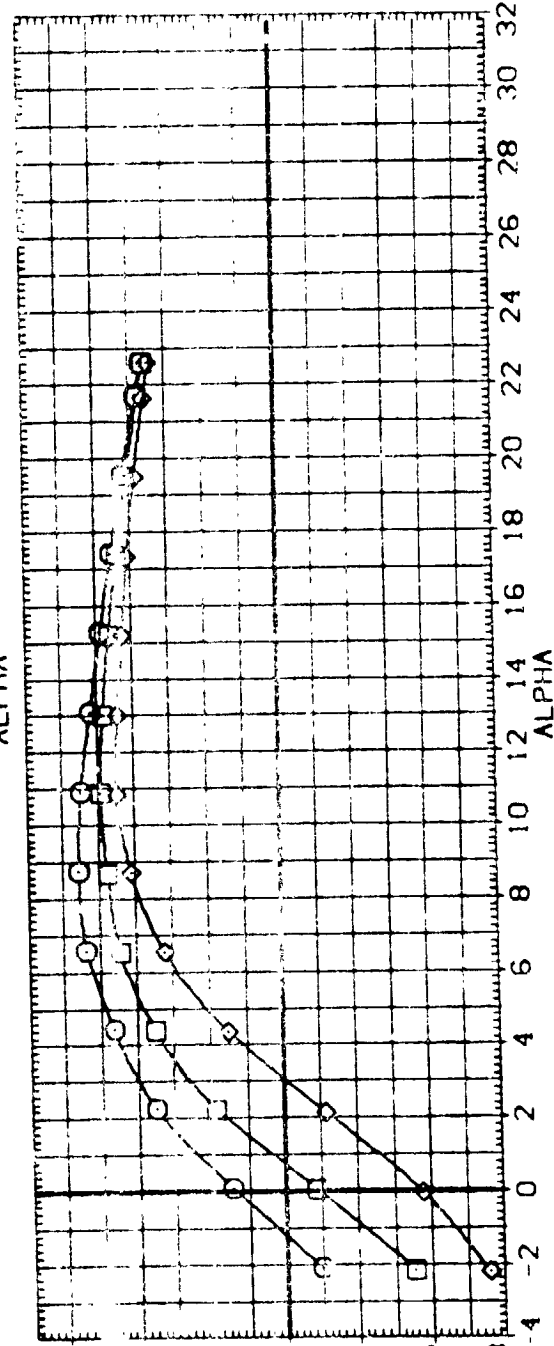
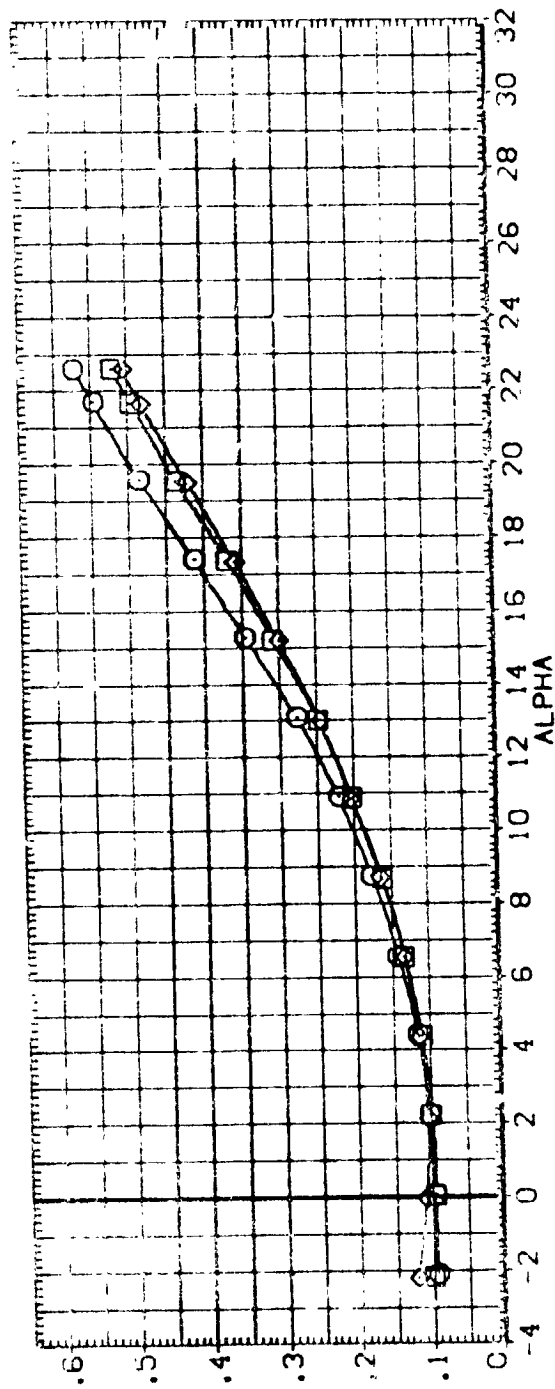


FIGURE 4. FULL SPAN ELEVON PITCH CHARACTERISTICS

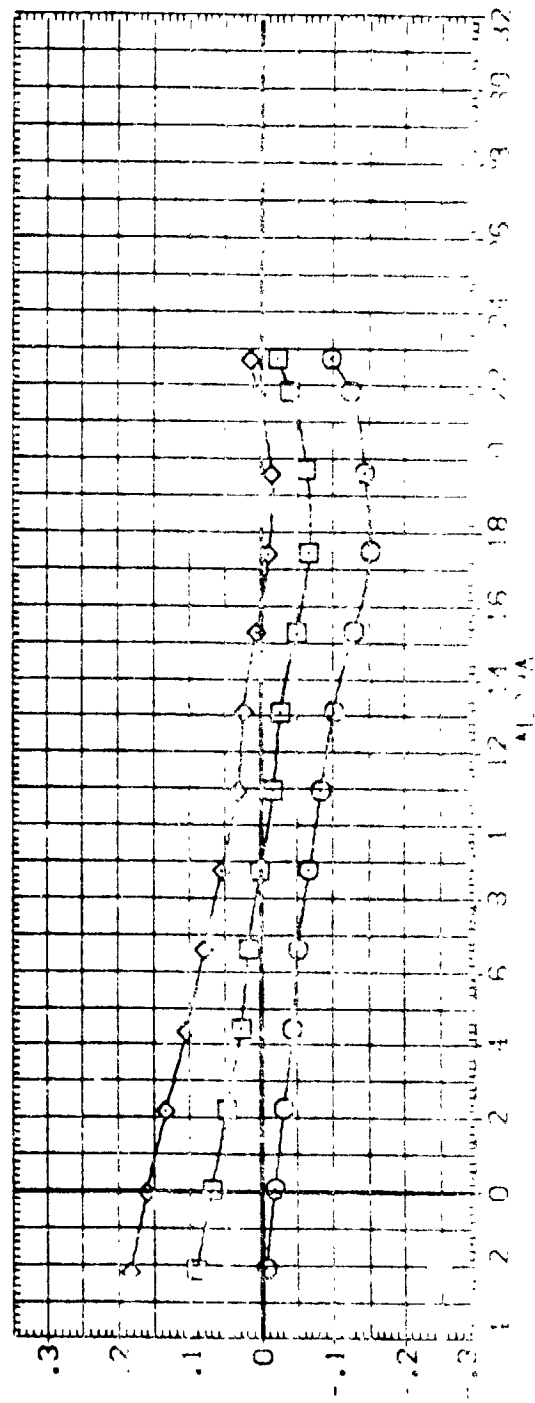
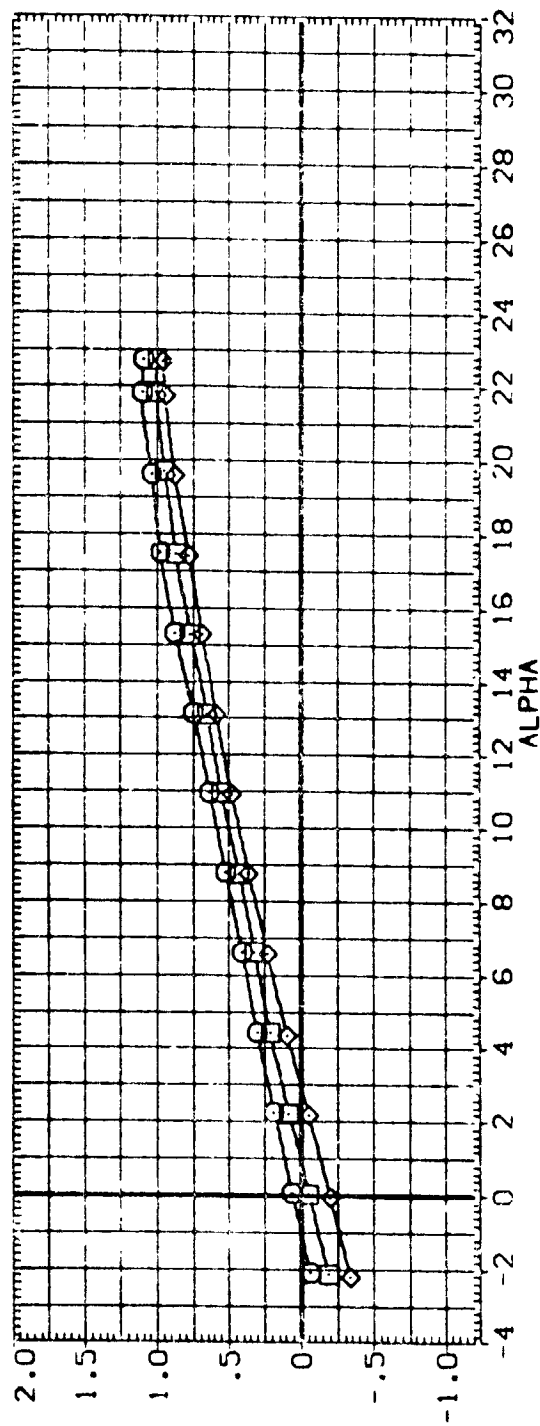
(E)MACH = .92

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0

(AM1001)    LA-19 8-FT TPT 680 RI-0893/135    088 SPL1T ELEVON    .000    .000    .000    .000

(AM1005)    LA-19 8-FT TPT 680 RI-0893/135    088 SPL1T ELEVON    -10.000    -10.000    -10.000    -10.000

(AM1006)    LA-19 8-FT TPT 680 RI-0893/135    088 SPL1T ELEVON    -20.000    -20.000    -20.000    -20.000



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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (A)1001 LA-48 8-FT TPT 680 RI-0698/139 0-48 SPL IT ELEVON  
 (A)1005 LA-48 8-FT TPT 680 RI-0698/139 0-48 SPL IT ELEVON  
 (A)1006 LA-48 8-FT TPT 680 RI-0698/139 0-48 SPL IT ELEVON

ELEV-LO ELEV-LI ELEV-RI ELEV-RO  
 -10,000 -10,000 -10,000 -10,000  
 -20,000 -10,000 -10,000 -10,000

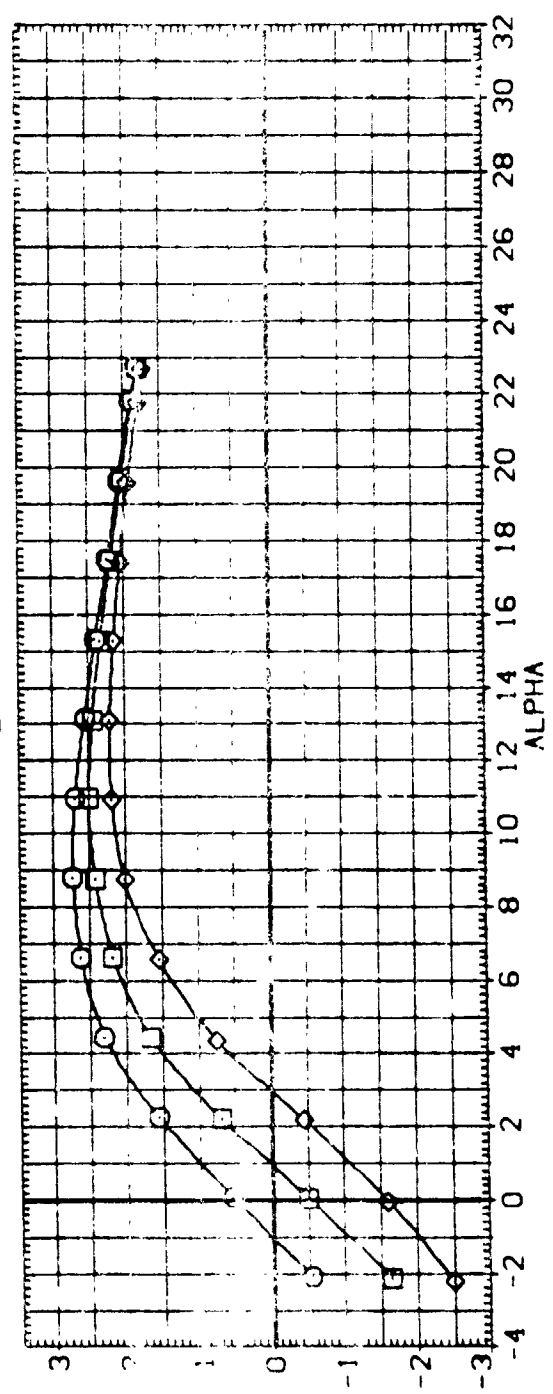
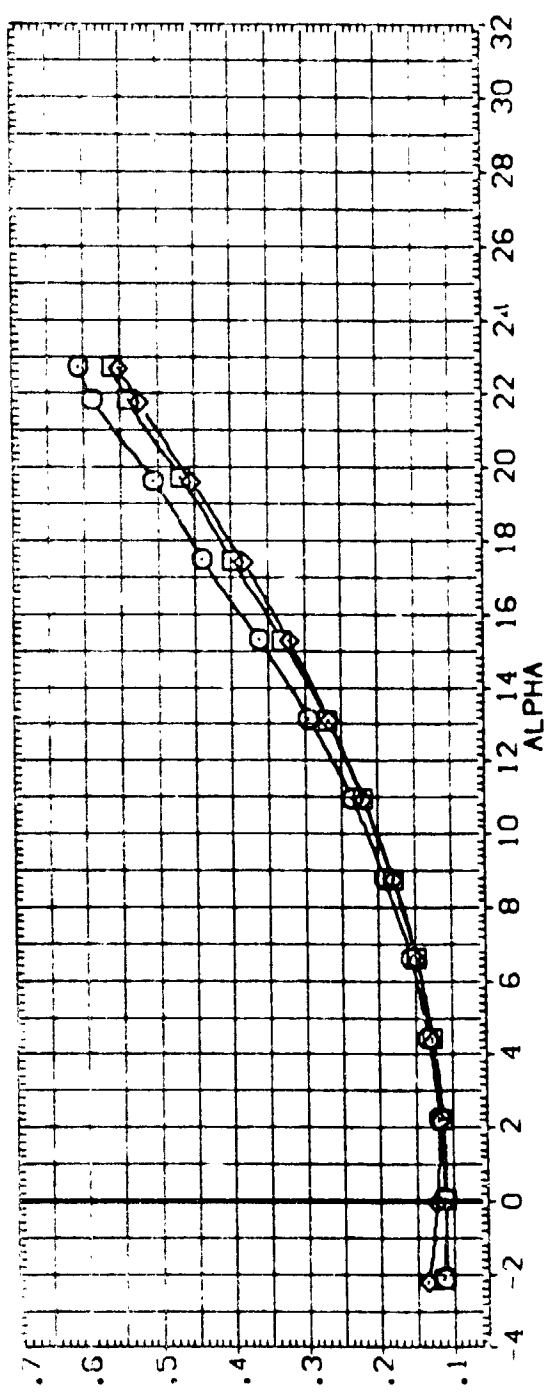


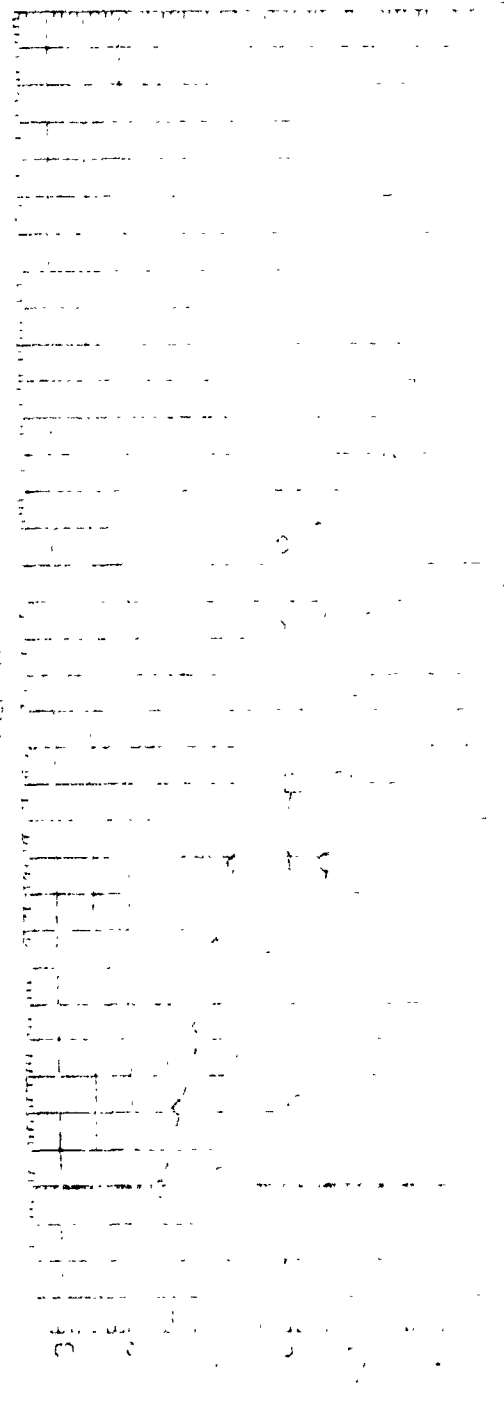
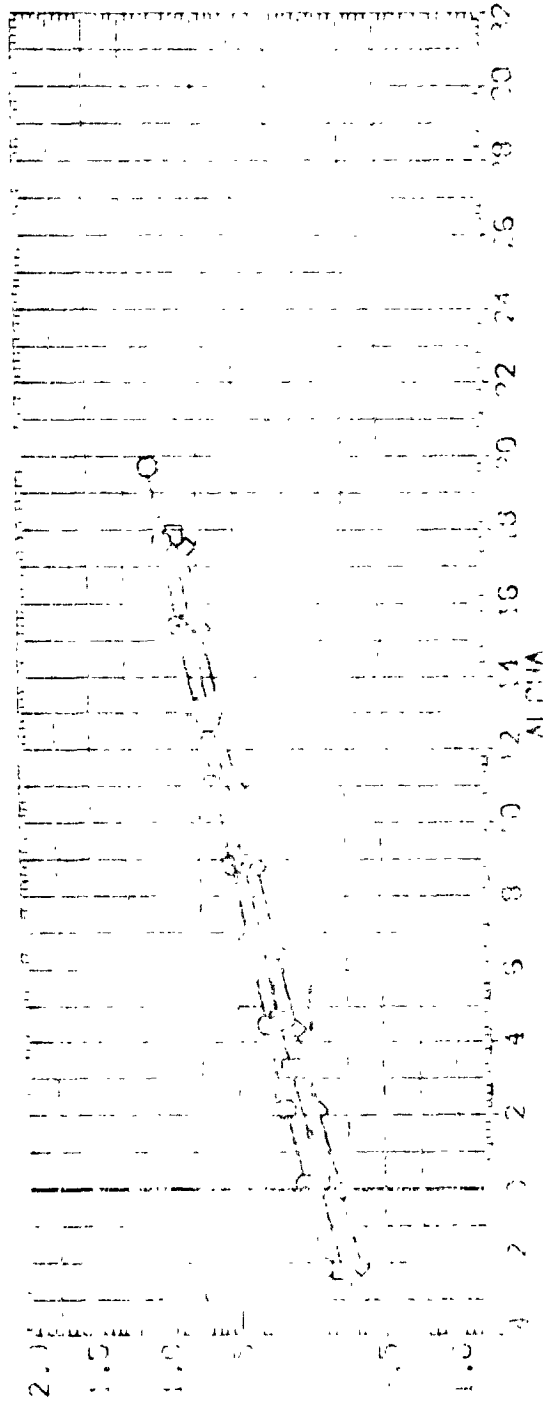
FIGURE 4. FULL SPAN ELEVON PITCH CHARACTERISTICS

(F)MACH = .95

DATA SET SYMB. CONFIGURATION DESCRIPTION

(A) (001) LA-48 8-FT PT 600 RI-06 8-FT 139 549 SPL IT ELEVATION  
 (A) (005) LA-48 8-FT PT 600 RI-06 8-FT 139 549 SPL IT ELEVATION  
 (A) (005) LA-48 8-FT PT 600 RI-06 8-FT 139 549 SPL IT ELEVATION

ELV-L3 ELV-L1 ELV-R1 ELV-R0  
 .000 .000 .000 .000  
 -10,000 -10,000 -10,000 -10,000  
 -20,000 -20,000 -20,000 -20,000



00

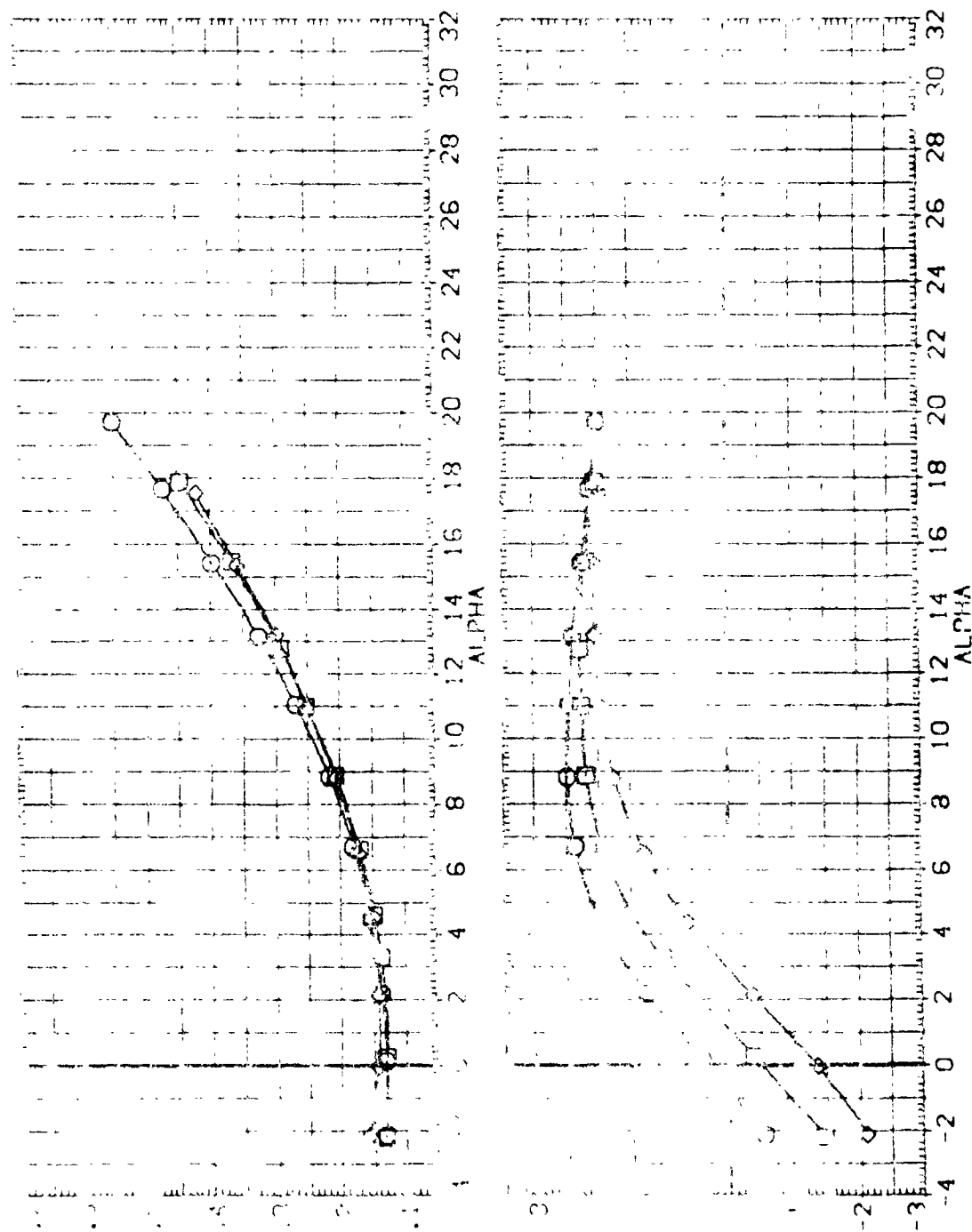
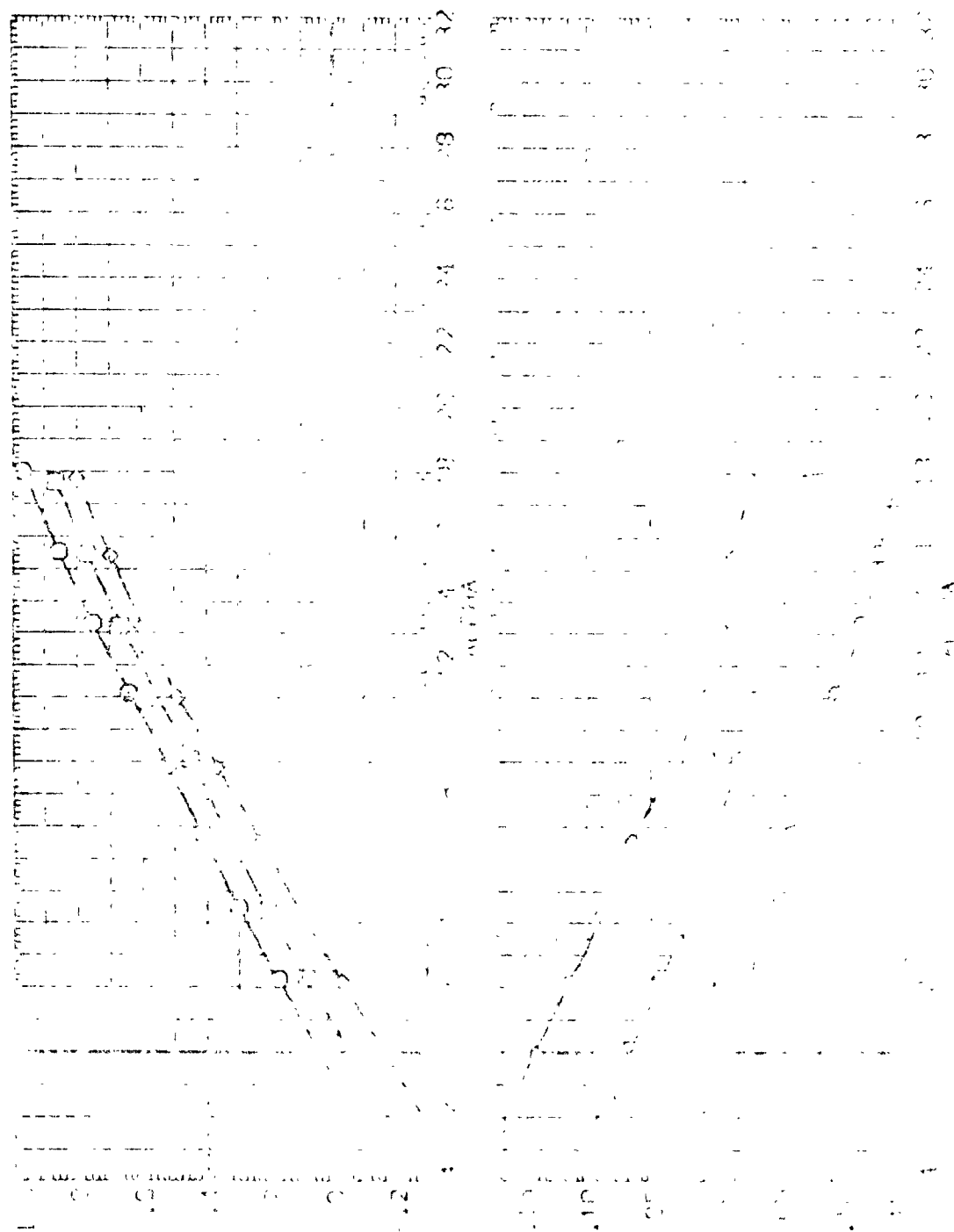


FIGURE 4. FULL SPAN ELEVEN PITCH CHARACTERISTICS

$$(G)_{MACH} = .98$$

1957

	ELV-L0	ELV-L1	ELV-R1	ELV-R0
0000	0000	0000	0000	0000
1000	1000	1000	1000	1000
2000	2000	2000	2000	2000



1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 26



DATA SET NAME	CONCISE DESCRIPTION	FILE	FILE	FILE
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DATA SET 2	DESCRIPTION 2	FILE 2	FILE 2	FILE 2
DATA SET 3	DESCRIPTION 3	FILE 3	FILE 3	FILE 3
DATA SET 4	DESCRIPTION 4	FILE 4	FILE 4	FILE 4
DATA SET 5	DESCRIPTION 5	FILE 5	FILE 5	FILE 5
DATA SET 6	DESCRIPTION 6	FILE 6	FILE 6	FILE 6
DATA SET 7	DESCRIPTION 7	FILE 7	FILE 7	FILE 7
DATA SET 8	DESCRIPTION 8	FILE 8	FILE 8	FILE 8
DATA SET 9	DESCRIPTION 9	FILE 9	FILE 9	FILE 9
DATA SET 10	DESCRIPTION 10	FILE 10	FILE 10	FILE 10
DATA SET 11	DESCRIPTION 11	FILE 11	FILE 11	FILE 11
DATA SET 12	DESCRIPTION 12	FILE 12	FILE 12	FILE 12
DATA SET 13	DESCRIPTION 13	FILE 13	FILE 13	FILE 13
DATA SET 14	DESCRIPTION 14	FILE 14	FILE 14	FILE 14
DATA SET 15	DESCRIPTION 15	FILE 15	FILE 15	FILE 15
DATA SET 16	DESCRIPTION 16	FILE 16	FILE 16	FILE 16
DATA SET 17	DESCRIPTION 17	FILE 17	FILE 17	FILE 17
DATA SET 18	DESCRIPTION 18	FILE 18	FILE 18	FILE 18
DATA SET 19	DESCRIPTION 19	FILE 19	FILE 19	FILE 19
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DATA SET 21	DESCRIPTION 21	FILE 21	FILE 21	FILE 21
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DATA SET 23	DESCRIPTION 23	FILE 23	FILE 23	FILE 23
DATA SET 24	DESCRIPTION 24	FILE 24	FILE 24	FILE 24
DATA SET 25	DESCRIPTION 25	FILE 25	FILE 25	FILE 25
DATA SET 26	DESCRIPTION 26	FILE 26	FILE 26	FILE 26
DATA SET 27	DESCRIPTION 27	FILE 27	FILE 27	FILE 27
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DATA SET 30	DESCRIPTION 30	FILE 30	FILE 30	FILE 30
DATA SET 31	DESCRIPTION 31	FILE 31	FILE 31	FILE 31
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DATA SET 37	DESCRIPTION 37	FILE 37	FILE 37	FILE 37
DATA SET 38	DESCRIPTION 38	FILE 38	FILE 38	FILE 38
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DATA SET 40	DESCRIPTION 40	FILE 40	FILE 40	FILE 40
DATA SET 41	DESCRIPTION 41	FILE 41	FILE 41	FILE 41
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DATA SET 71	DESCRIPTION			

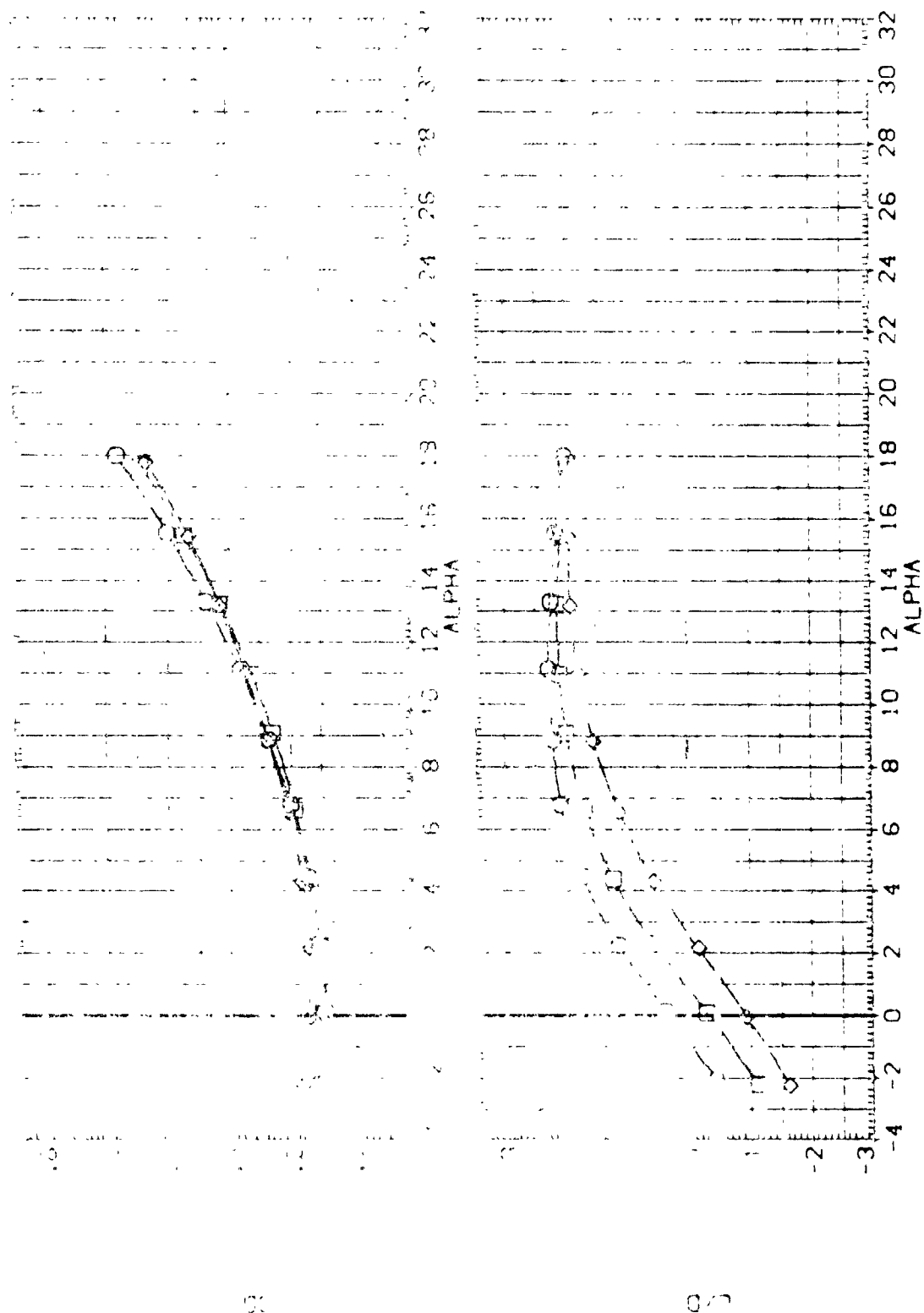


FIGURE 4. FULL SPAN ELEVEN PITCH CHARACTERISTICS

$$(\text{H})\text{MACH} = 1.08$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-LD	ELV-LI	ELV-RI	ELV-RD
(AHL001)	CA-19 8 FT 19T 060 RI 0608/179 078	0.000	0.000	0.000	0.000
(AHL002)	CA-19 8 FT 19T 060 RI 0608/179 078	0.000	0.000	0.000	0.000
(AHL003)	CA-48 8 FT 19T 060 RI 0608/179 078	0.000	0.000	0.000	0.000
(AHL004)	CA-48 8 FT 19T 060 RI 0608/179 078	0.000	0.000	0.000	0.000

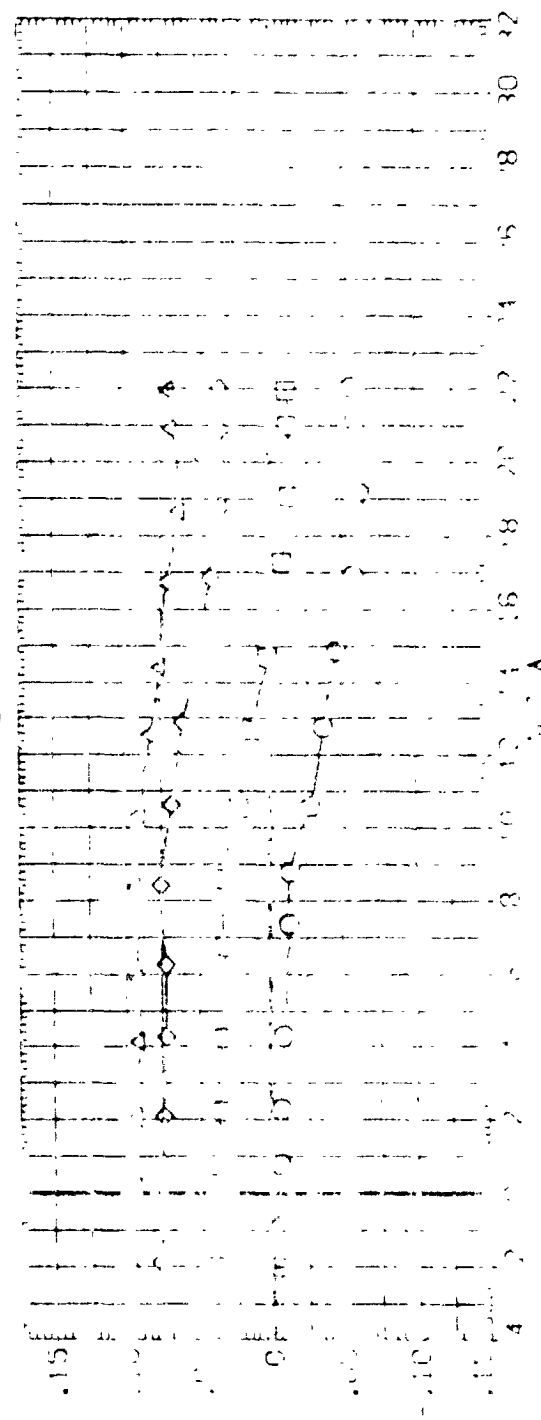
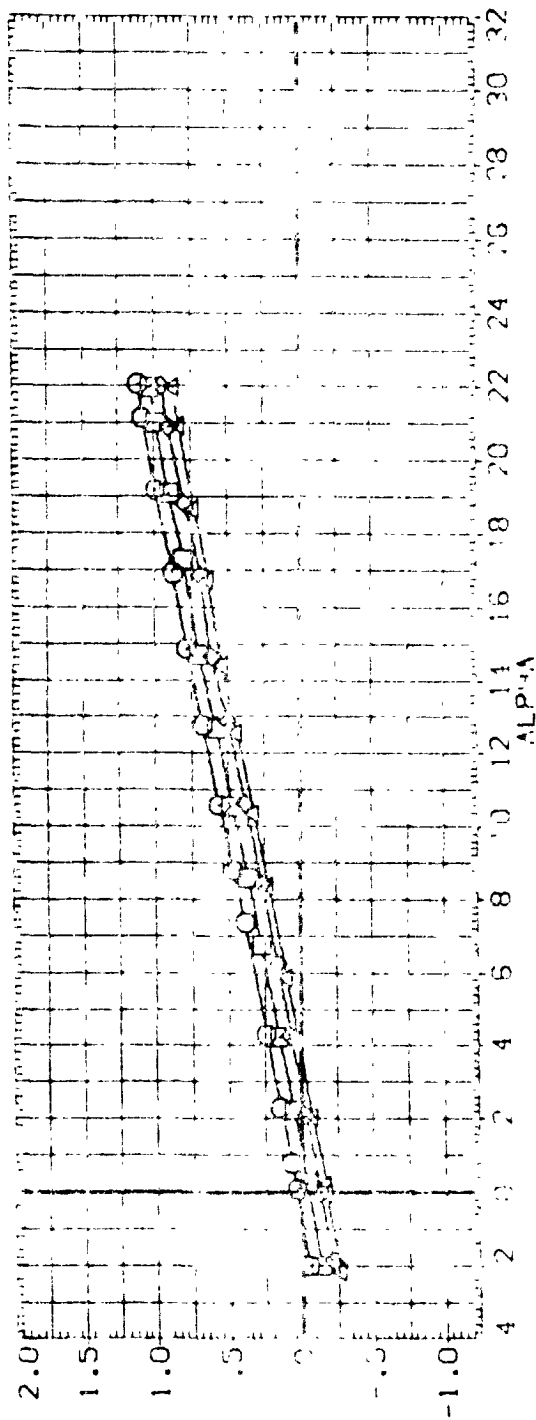


FIGURE 1. CL vs ALPHA PITCH (0.001) (0.001)

(0.001)

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0

(AH1001)    LA-18 3-FT TPT 680 RI-0898/139    078 SPL IT ELEVON    1000    1000    100    1000

(AH1002)    LA-18 3-FT TPT 590 RI-0898/139    078 SPL IT ELEVON    1000    1000    100    1000

(AH1003)    LA-18 3-FT TPT 590 RI-0898/139    078 SPL IT ELEVON    1000    1000    100    1000

(AH1004)    LA-18 3-FT TPT 590 RI-0898/139    078 SPL IT ELEVON    1000    1000    100    1000

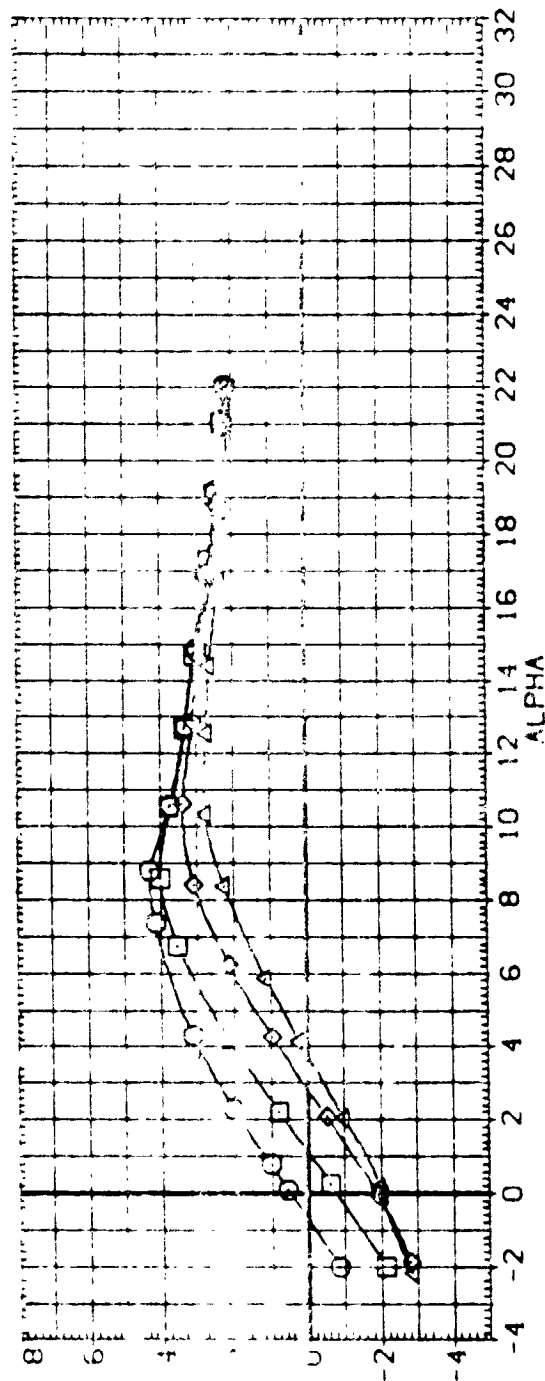
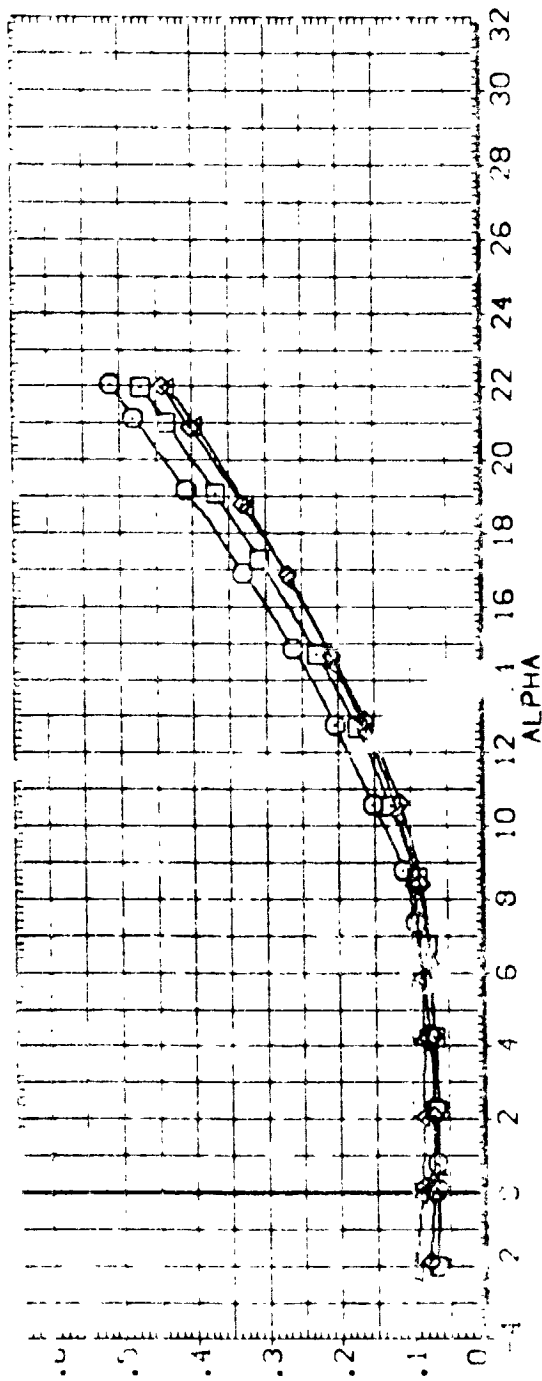


FIGURE 5. INBOARD ELEVON PITCH CHARACTERISTICS

(A)MACH = .60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(A11001)	□	LA-48 8-FT TPT 680 RI-0858/139 098 SPLTY ELEVON	.000	.000	.000	.000
(A11002)	○	LA-48 8-FT TPT 680 RI-0858/139 098 SPLTY ELEVON	.000	-10.000	-10.000	.000
(A11003)	×	LA-48 8-FT TPT 680 RI-0858/139 098 SPLTY ELEVON	.000	-20.000	-20.000	.000
(A11004)	△	LA-48 8-FT TPT 680 RI-0858/139 098 SPLTY ELEVON	.000	-30.000	-30.000	.000

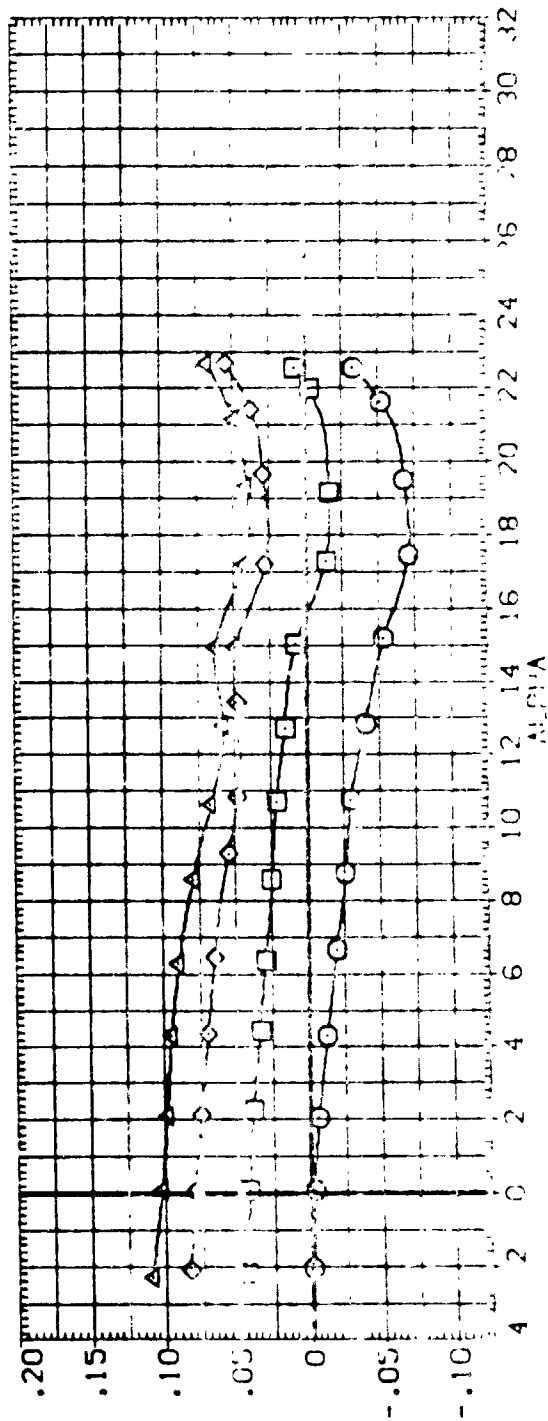
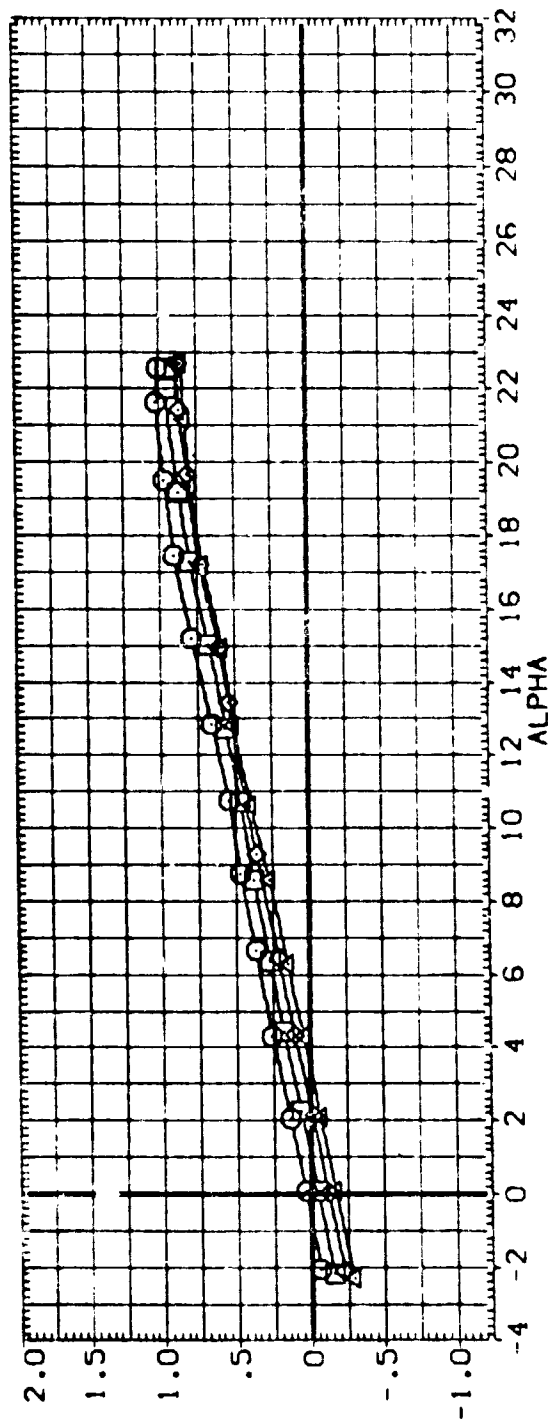


FIGURE 5. LOW-LEVEL PITCH CHARACTERISTICS

10000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-LG	ELV-LI	ELV-RI	ELV-RG
(AH1001)	LA-48 3 FT 19T 680 RI-0898/139 088 SPLIT ELEVON	.000	(14)	.000	.000
(AH1002)	LA-48 3 FT 19T 680 RI-0898/139 088 SPLIT ELEVON	.000	(14)	.000	.000
(AH1003)	LA-48 8 FT 19T 680 RI-0898/139 088 SPLIT ELEVON	.000	(14)	.000	.000
(AH1004)	LA-48 8 FT 19T 680 RI-0898/139 088 SPLIT ELEVON	.000	(14)	.000	.000

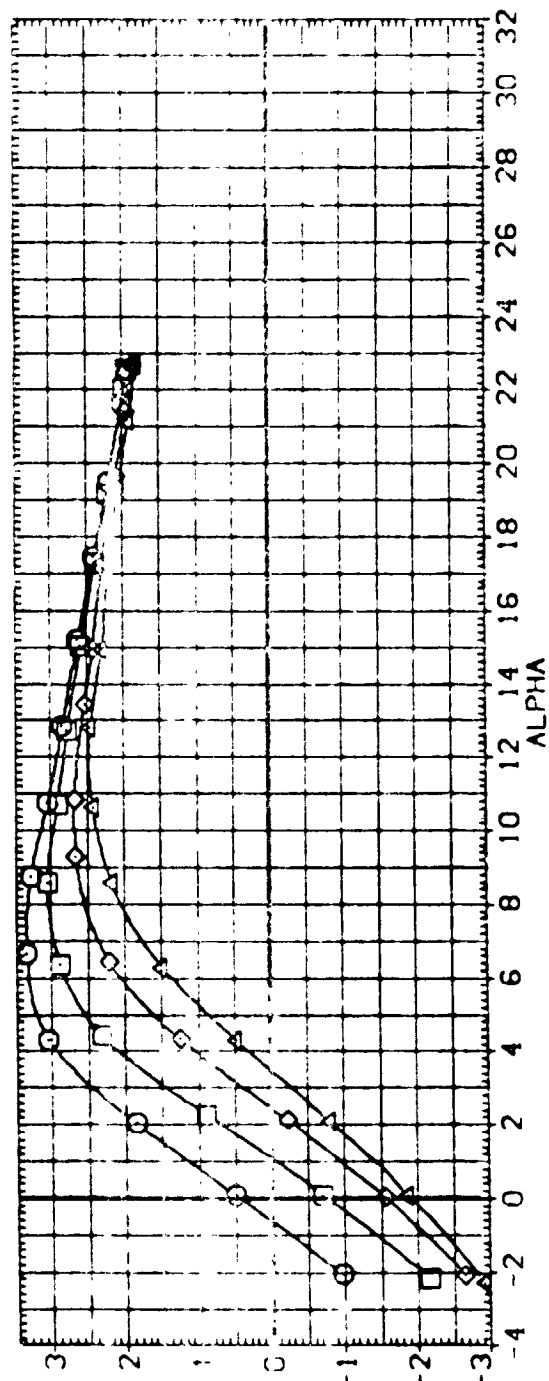
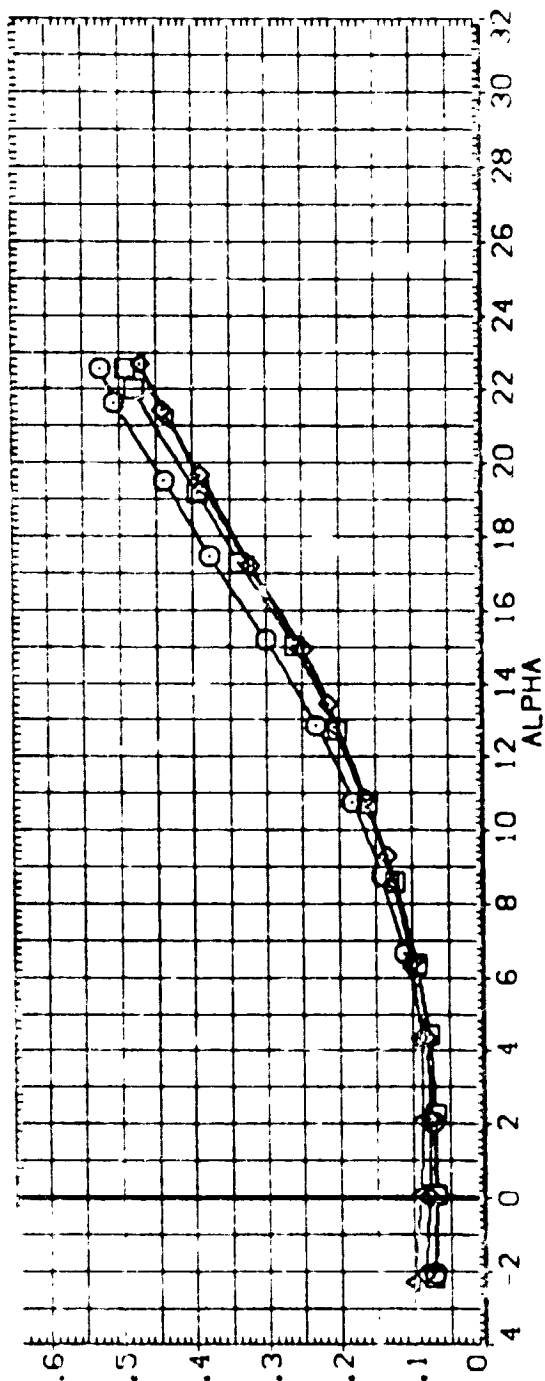


FIGURE 5. INBOARD ELEVON PITCH CHARACTERISTICS

(8)MACH = .80

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(AH1001)	○	LA-48 8-FT TPT 680 RI-0898/135	DR8 SPLIT ELEVON	.000	.000	.000	.000
(AH1002)	○	LA-48 8-FT TPT 680 RI-0898/135	DR8 SPLIT ELEVON	.000	-10.000	-10.000	.000
(AH1003)	○	LA-48 8-FT TPT 680 RI-0898/135	DR8 SPLIT ELEVON	.000	-20.000	-20.000	.000
(AH1004)	○	LA-48 8-FT TPT 680 RI-0898/135	DR8 SPLIT ELEVON	.000	-30.000	-30.000	.000

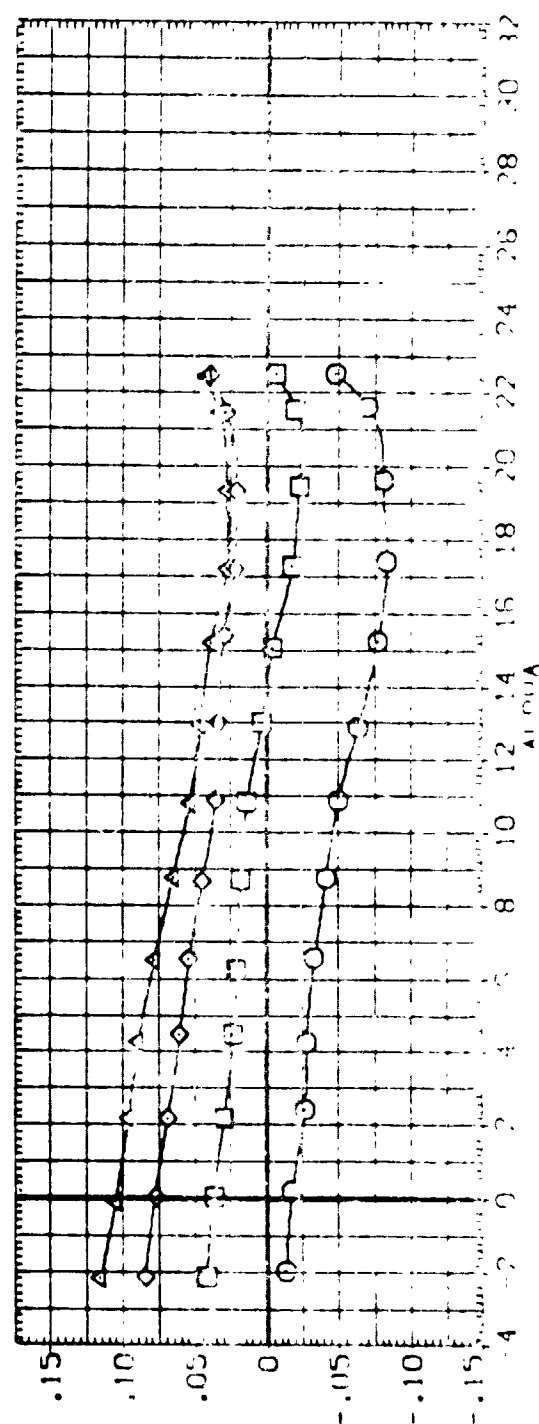
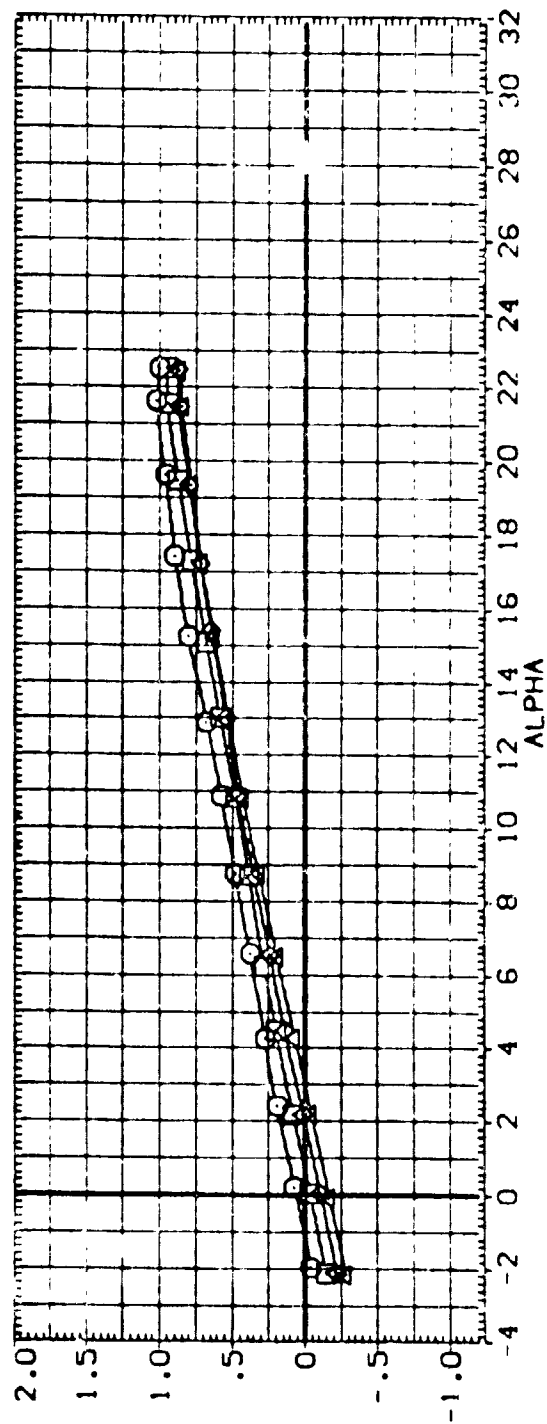


FIGURE 2. DATA SETS 1001, 1002, 1003, 1004

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LA-48 8-FT TPI	890 RI	0898/138	048	SA 11 ELEVON	ELV-LO	ELV-CL	ELV-RI	ELV-R2
(AM1001)	LA-48 8-FT TPI	890 RI	0898/138	048	SA 11 ELEVON	0.00	0.00	0.00	0.00	0.00
(AM1002)	LA-48 8-FT TPI	890 RI	0898/138	048	SA 11 ELEVON	0.00	0.00	0.00	0.00	0.00
(AM1003)	LA-48 8-FT TPI	890 RI	0898/138	048	SA 11 ELEVON	0.00	0.00	0.00	0.00	0.00
(AM1004)	LA-48 8-FT TPI	890 RI	0898/138	048	SA 11 ELEVON	0.00	0.00	0.00	0.00	0.00

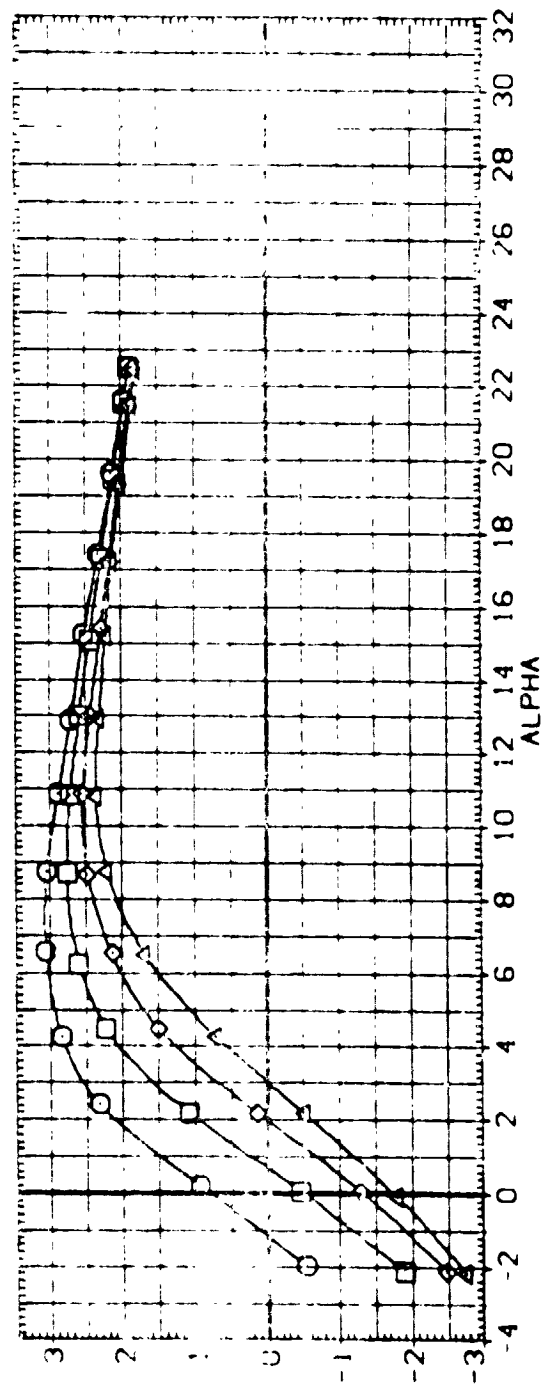
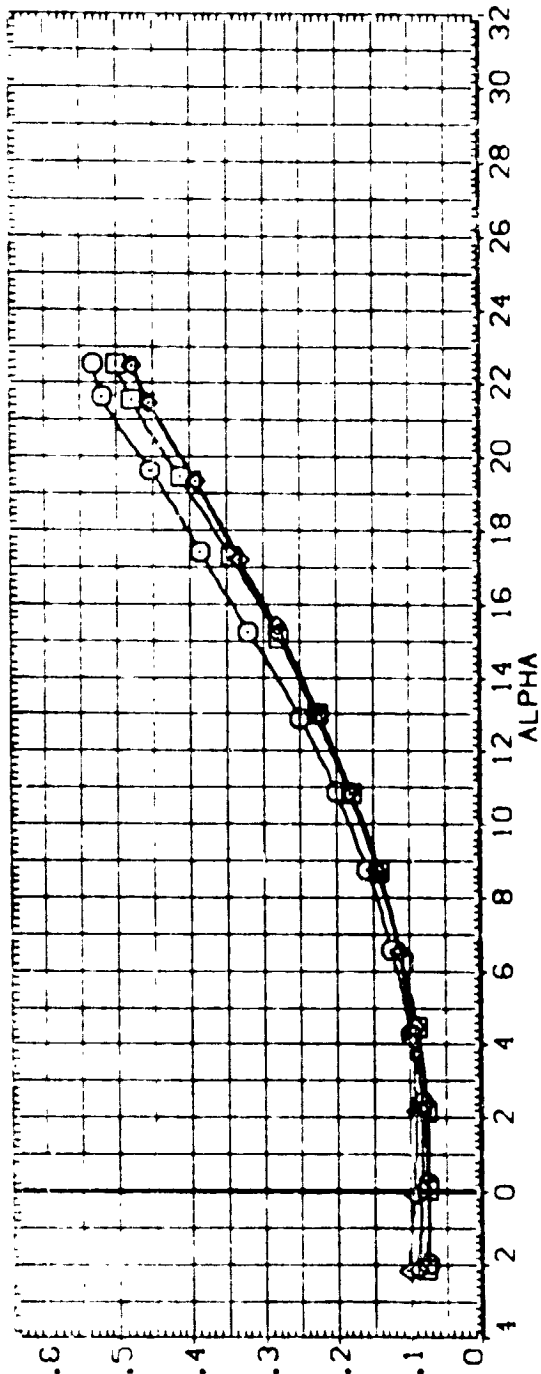


FIGURE 5. INBOARD ELEVON PITCH CHARACTERISTICS

(C)MACH = .85

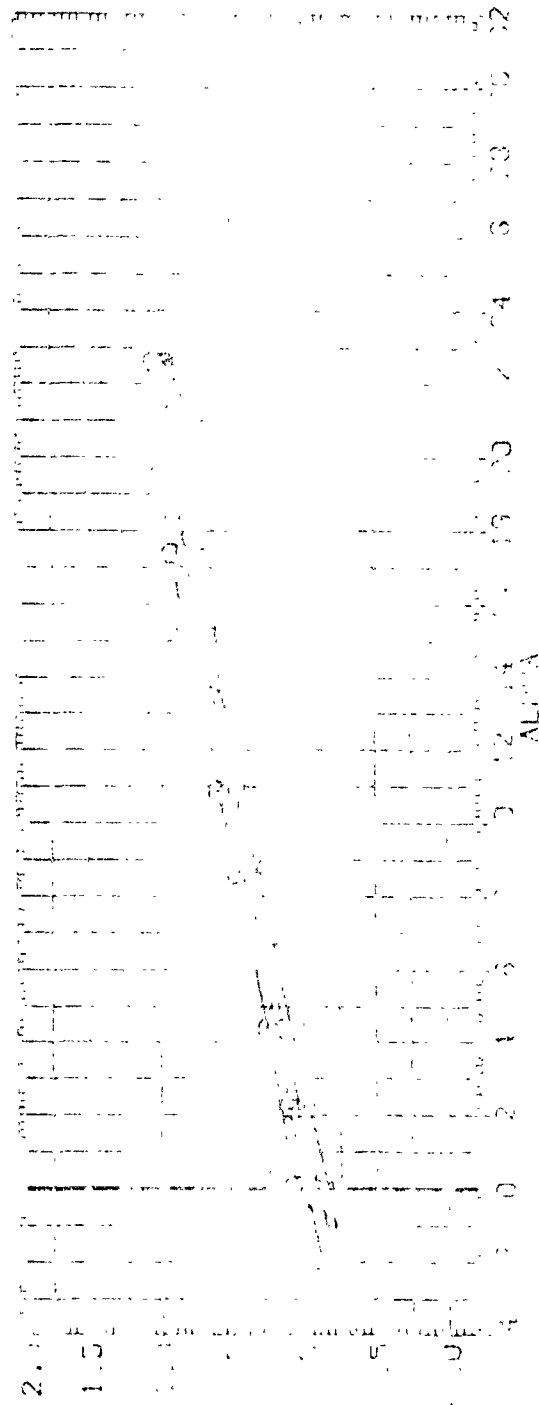
DATA SET SINGLES      CONFIGURATION DESCRIPTION      ELEV-LO      ELEV-LI      ELEV-RI      ELEV-RO

LA-143 8-FT 10T 500 RIGID 2/19      0.000      0.000      0.000      0.000

LA-143 8-FT 10T 500 RIGID 2/19      0.000      0.000      0.000      0.000

LA-143 8-FT 10T 500 RIGID 2/19      0.000      0.000      0.000      0.000

LA-143 8-FT 10T 500 RIGID 2/19      0.000      0.000      0.000      0.000



LA-143 8-FT 10T 500 RIGID 2/19



1.0  
 0.8  
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 0.4  
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 0.0  
 -0.2  
 -0.4  
 -0.6  
 -0.8  
 -1.0

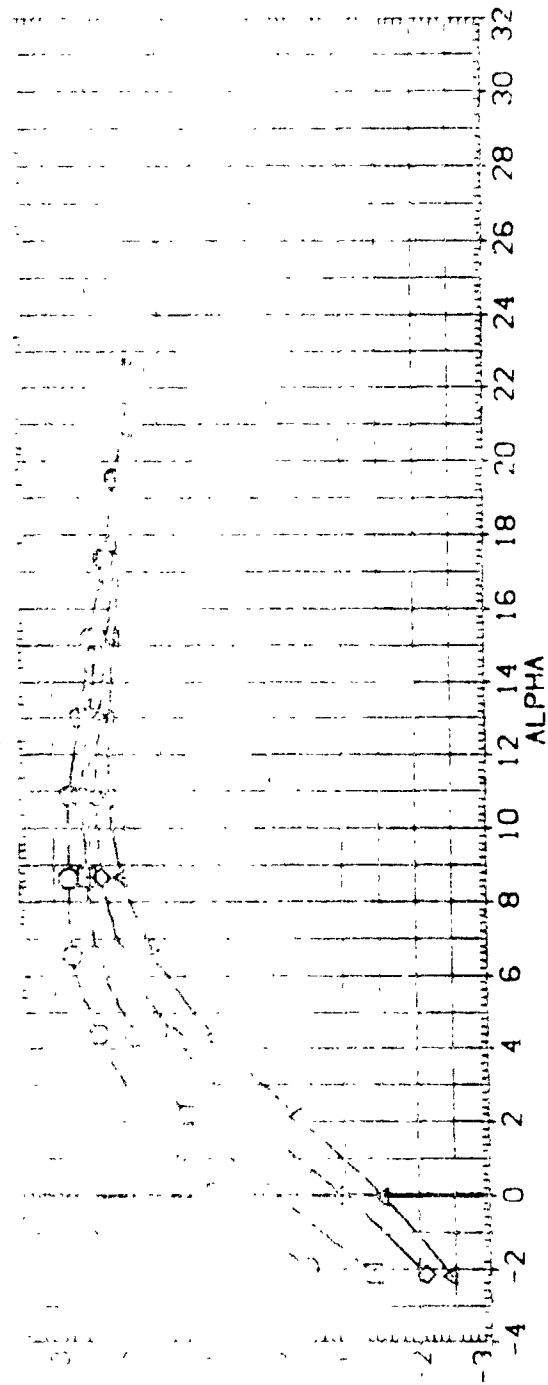
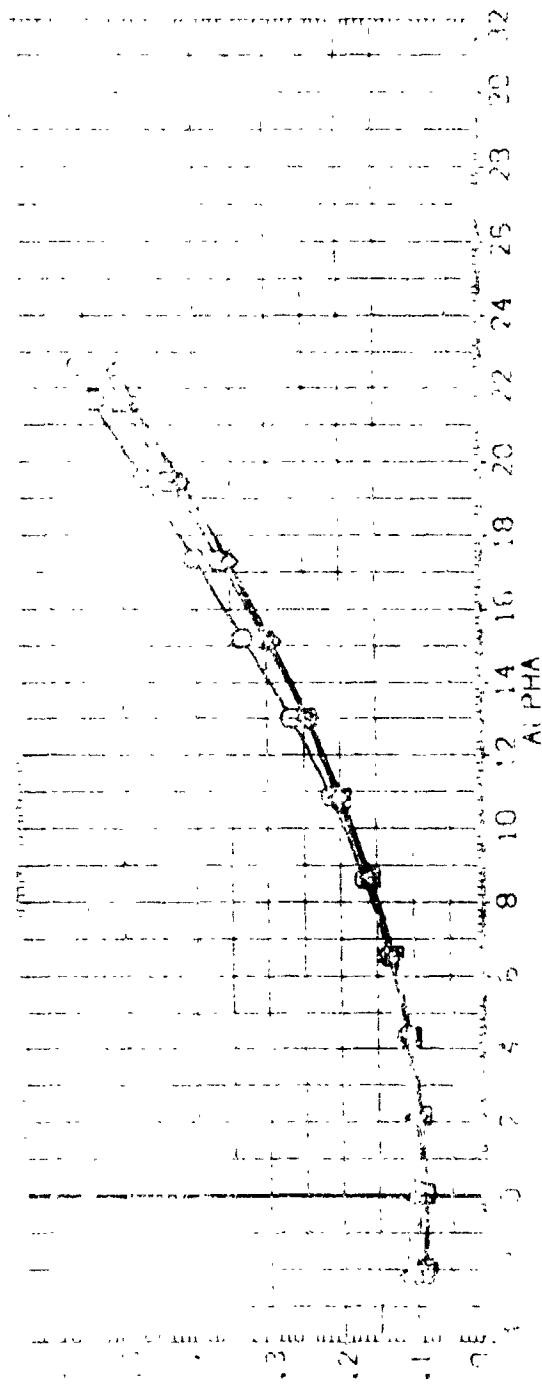


FIGURE 5. INBOARD ELEVON PITCH CHARACTERISTICS

(O)MACH = .90



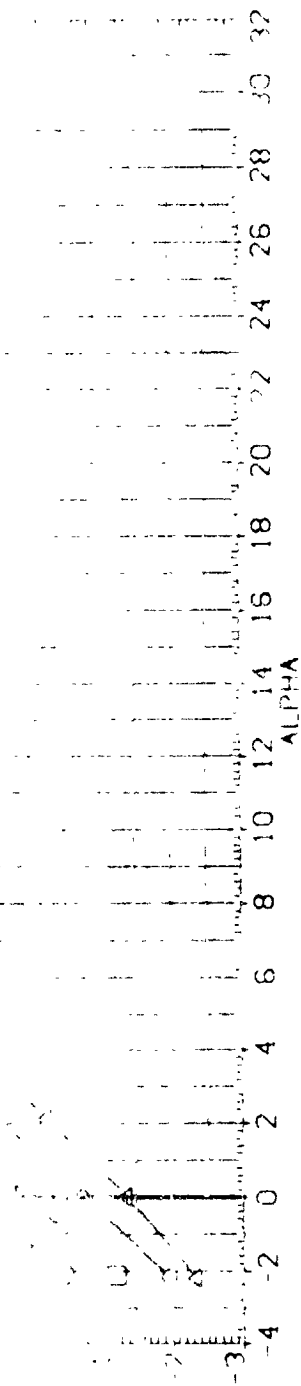


FIGURE 5. INBOARD ELEVEN PITCH CHARACTERISTICS

$$(E)MACH = .92$$

DATA SET SYMBOL    COORDINATE DESCRIPTION    ELEVATION    ELEV-LO    ELEV-LI    ELEV-RI    ELEV-RO

(A) 001	1000	1000	1000	1000	1000	1000
(A) 002	1000	1000	1000	1000	1000	1000
(A) 003	1000	1000	1000	1000	1000	1000
(A) 004	1000	1000	1000	1000	1000	1000

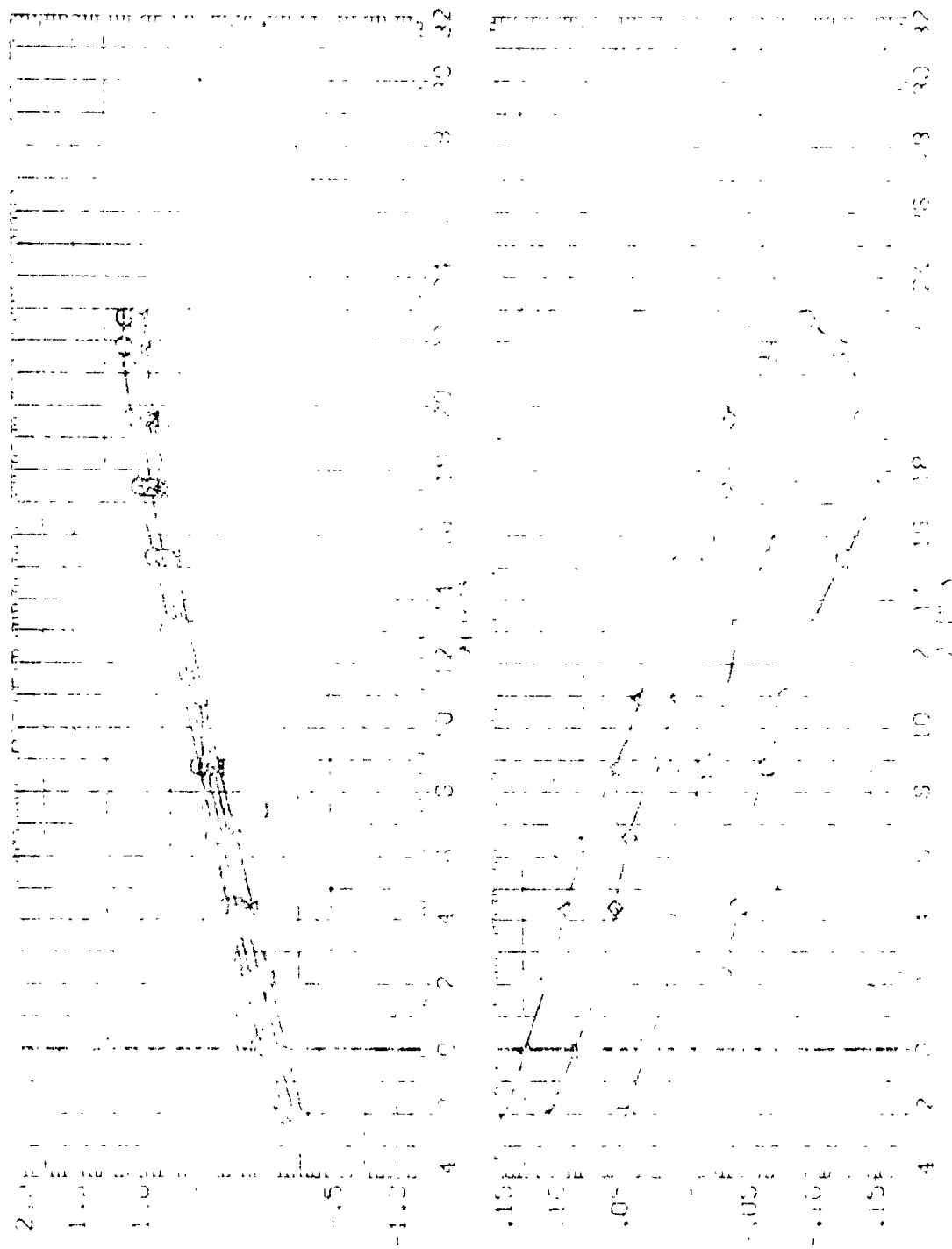


FIGURE 5. ELEVATION PROFILE GRAPH

(F. HALL)

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 81. SET S.M.O. TO FOURTH POSITION  
 82. SET S.M.O. TO FOURTH POSITION  
 83. SET S.M.O. TO FOURTH POSITION  
 84. SET S.M.O. TO FOURTH POSITION  
 85. SET S.M.O. TO FOURTH POSITION  
 86. SET S.M.O. TO FOURTH POSITION  
 87. SET S.M.O. TO FOURTH POSITION  
 88. SET S.M.O. TO FOURTH POSITION  
 89. SET S.M.O. TO FOURTH POSITION  
 90. SET S.M.O. TO FOURTH POSITION  
 91. SET S.M.O. TO FOURTH POSITION  
 92. SET S.M.O. TO FOURTH POSITION  
 93. SET S.M.O. TO FOURTH POSITION  
 94. SET S.M.O. TO FOURTH POSITION  
 95. SET S.M.O. TO FOURTH POSITION  
 96. SET S.M.O. TO FOURTH POSITION  
 97. SET S.M.O. TO FOURTH POSITION  
 98. SET S.M.O. TO FOURTH POSITION  
 99. SET S.M.O. TO FOURTH POSITION  
 100. SET S.M.O. TO FOURTH POSITION

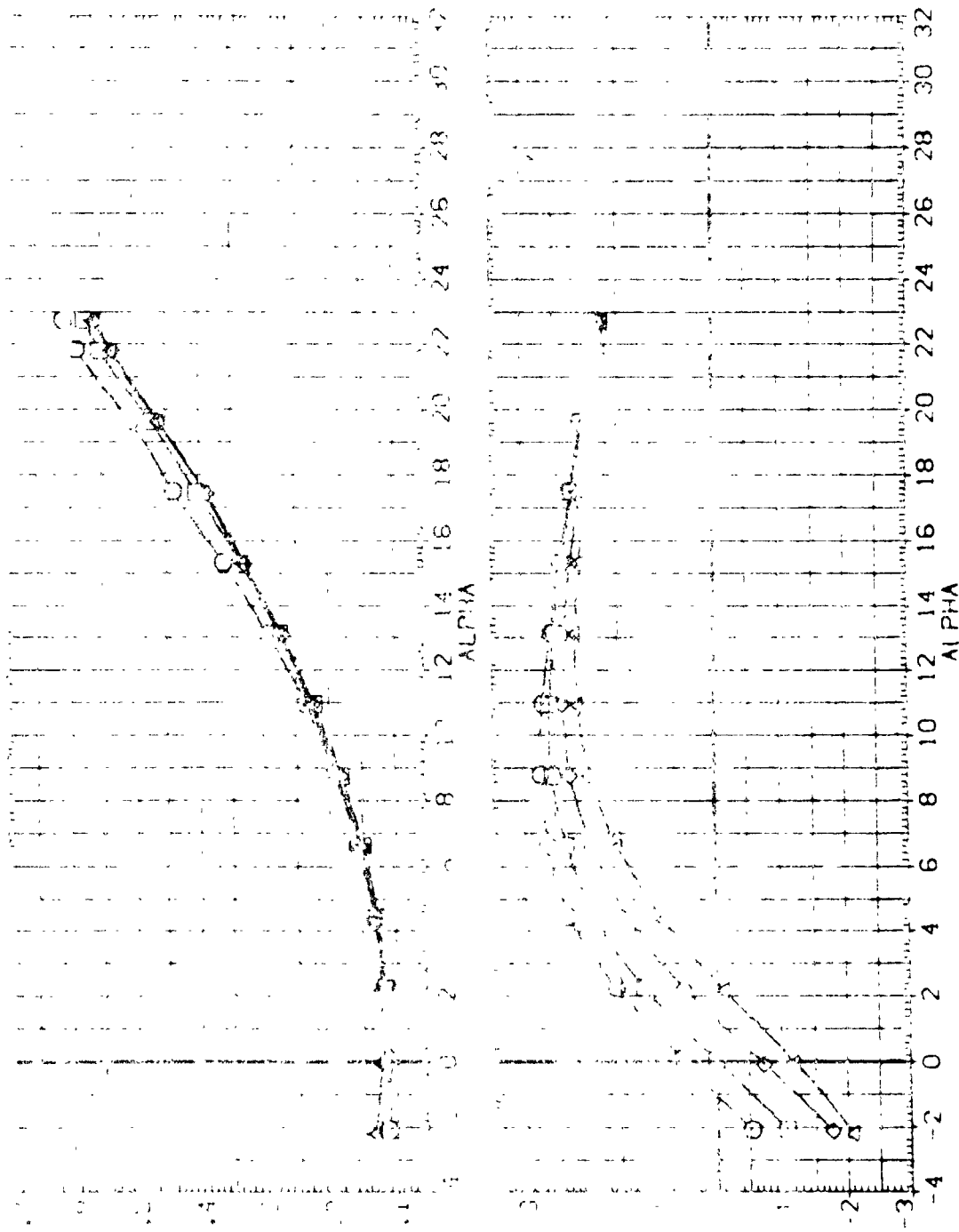


FIGURE 5. BOARD ELEVON PITCH CHARACTERISTICS  
 (F)MACH = .95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L3	ELV-L1	ELV-R1	ELV-R3
(AH1001)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000
(AH1002)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000
(AH1003)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000
(AH1004)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L3	ELV-L1	ELV-R1	ELV-R3
(AH1001)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000
(AH1002)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000
(AH1003)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000
(AH1004)	LA-43 8 FT 121 690 RI 1058/125	.000	.000	.000	.000

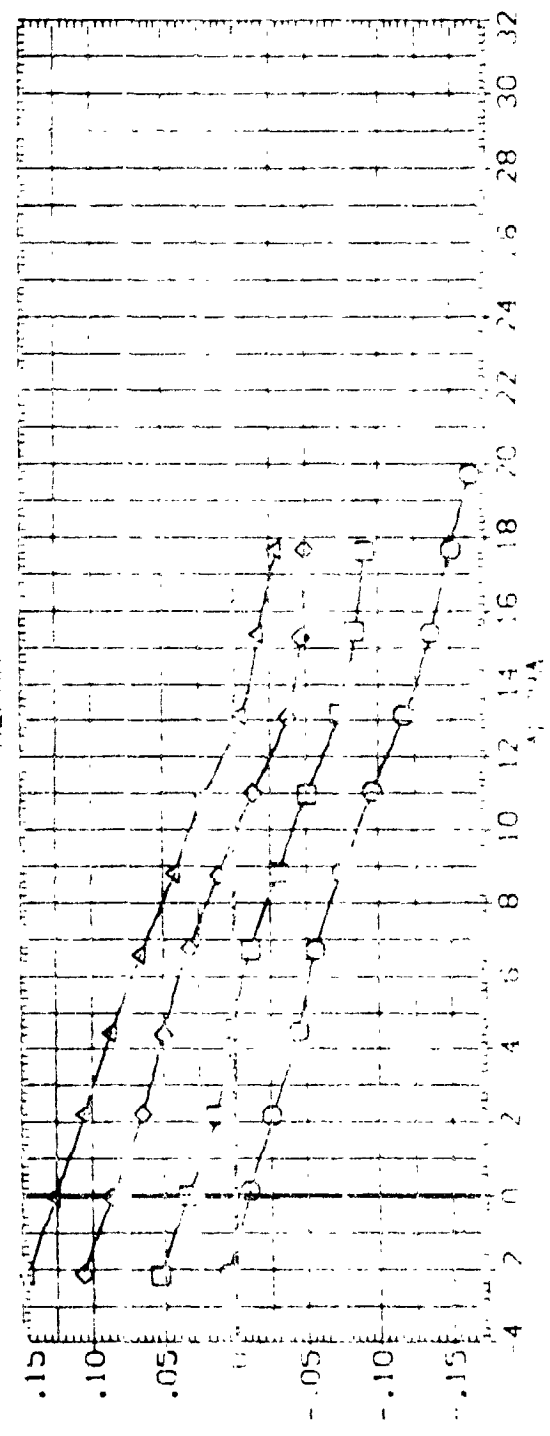
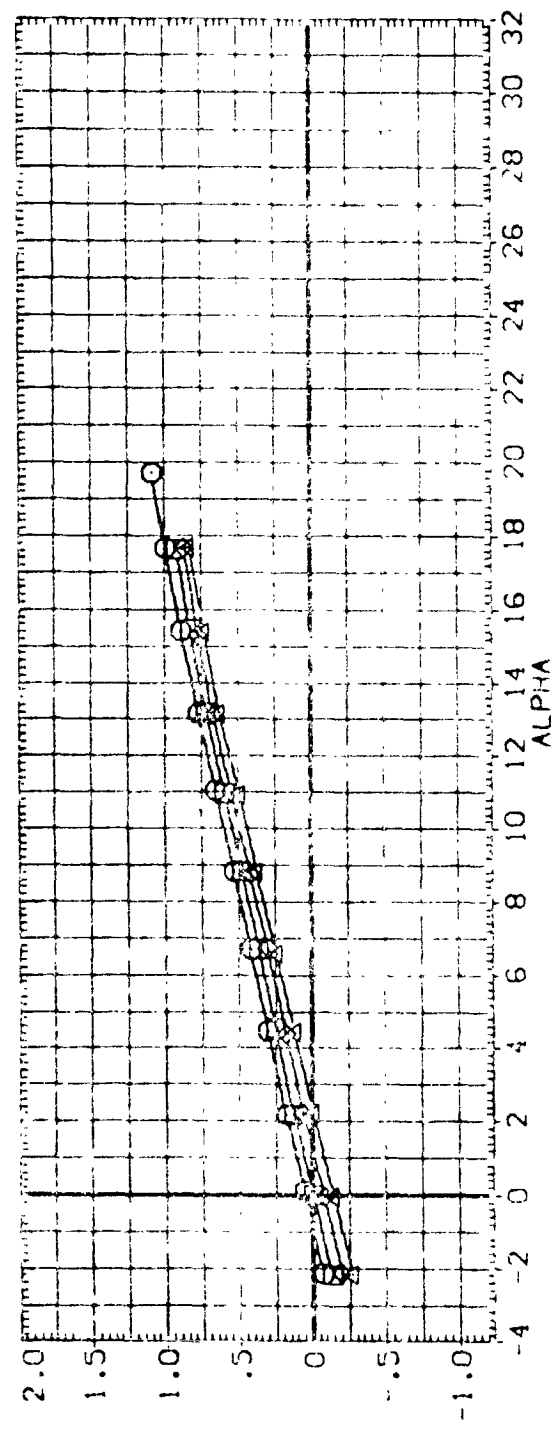


FIGURE 9. EFFECT OF ELEVATION PI ON CHARACTERISTICS

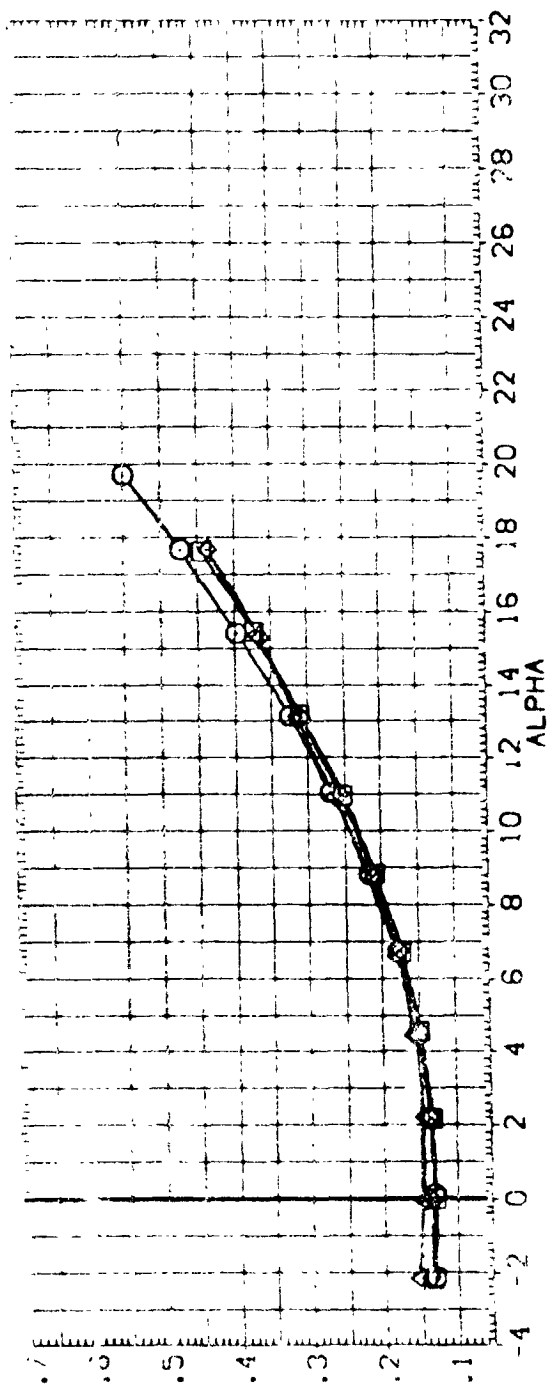
COMACH

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(A11001) LA-18 8 FT 12T 580 RI-0888/123 ORB SPLIT ELEVON  
 (A11002) LA-18 8 FT 12T 580 RI-0888/123 ORB SPLIT ELEVON  
 (A11003) LA-18 8 FT 12T 580 RI-0888/123 ORB SPLIT ELEVON  
 (A11004) LA-18 8 FT 12T 580 RI-0888/123 ORB SPLIT ELEVON

ELEVON FLUTTER 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000

CD



L/D

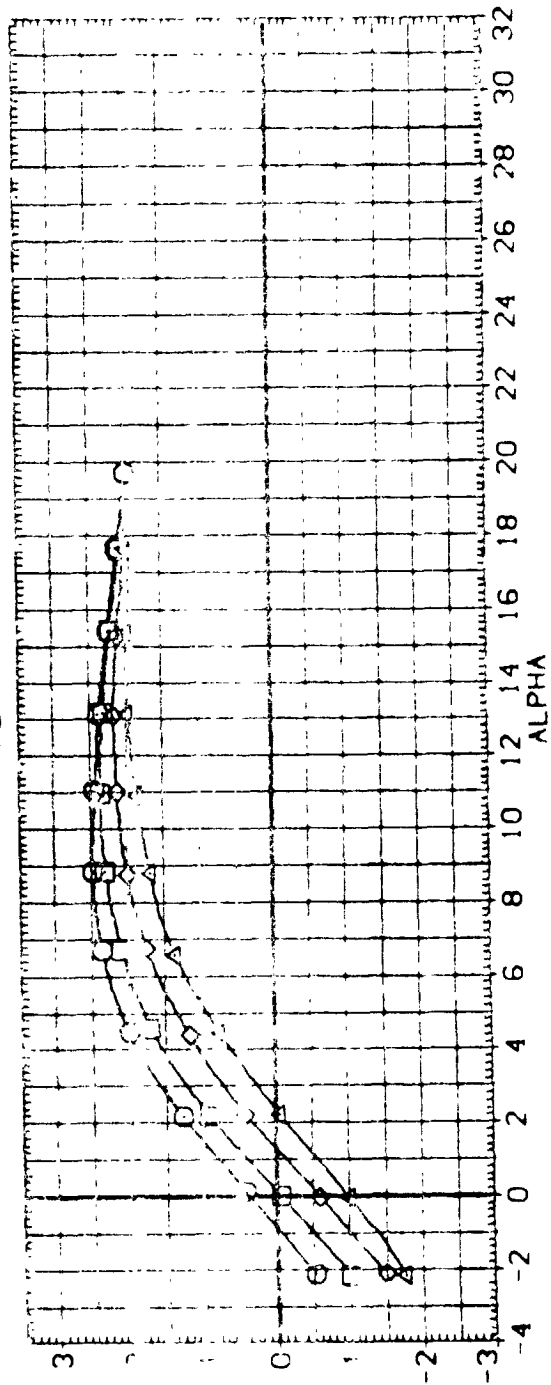


FIGURE 5. INBOARD ELEVON PITCH CHARACTERISTICS

(G)MACH = .98

DATA SET SYMBOL: CONF. QUASION DESCRIPTION

DATA SET SYMBOL	CONF. QUASION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
[AH1001]	LA-48 8-FT TPT 690 RI -0898/139 098 SPT IT ELEVON	.000	.000	.000	.000
[AH1002]	LA-48 9-FT TPT 690 RI -0898/139 098 SPT IT ELEVON	.000	-10.000	-10.000	.000
[AH1003]	LA-48 8-FT TPT 690 RI -0898/139 098 SPT IT ELEVON	.000	-20.000	-20.000	.000
[AH1004]	LA-48 8-FT TPT 690 RI -0898/139 098 SPT IT ELEVON	.000	-30.000	-30.000	.000

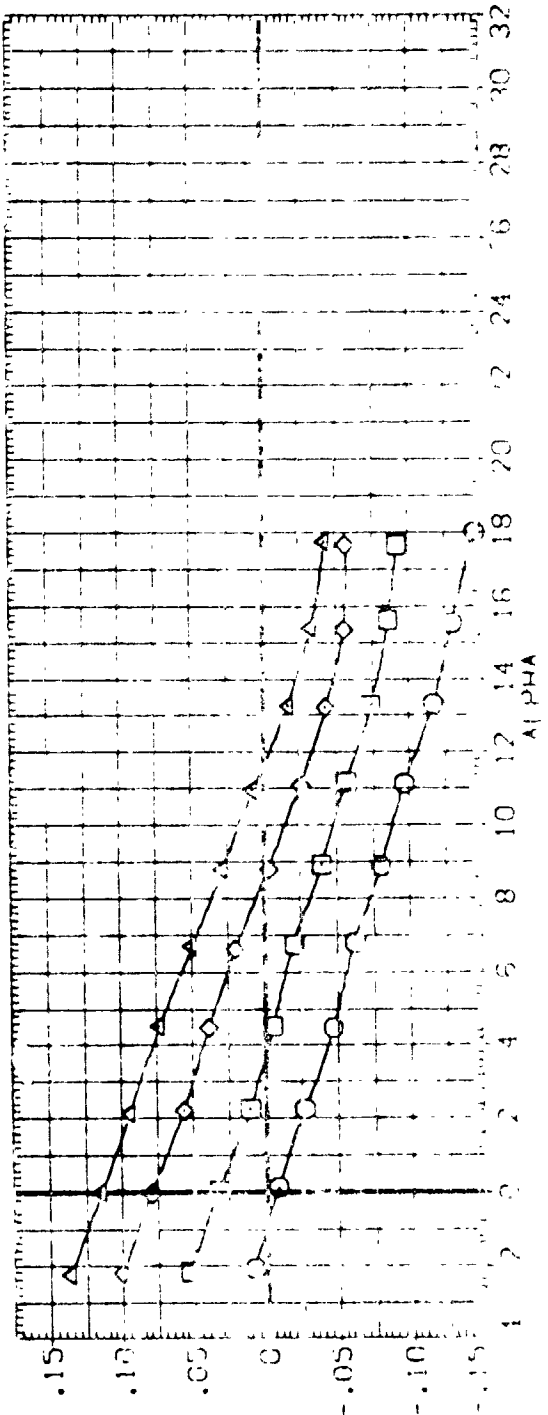
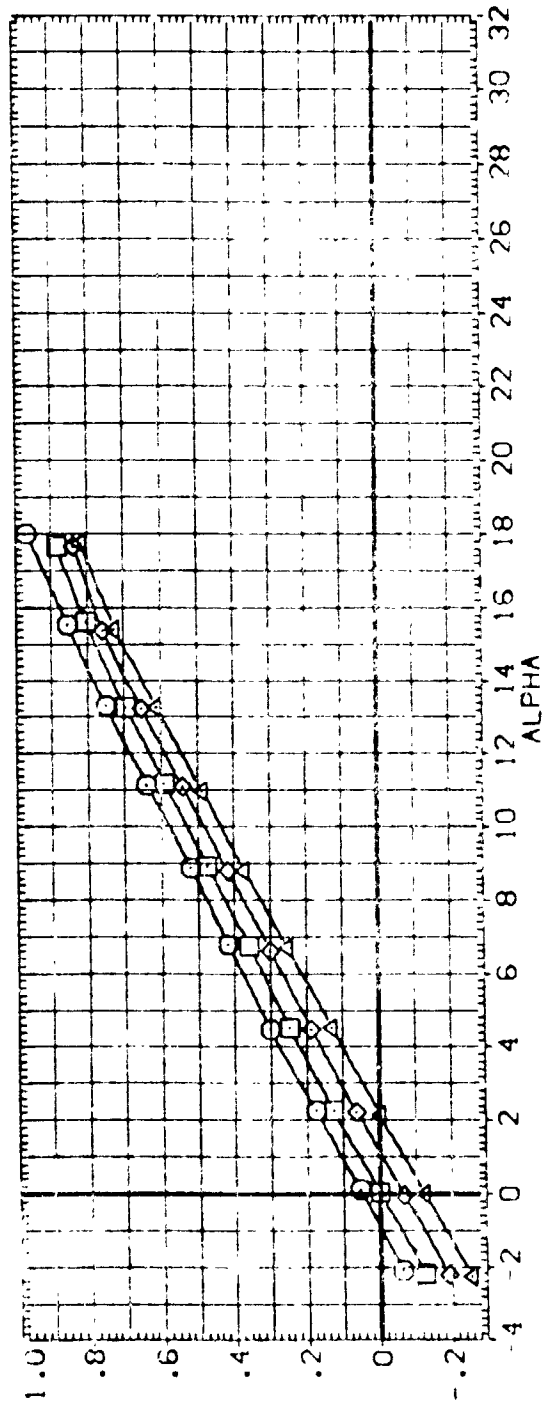


FIGURE 5. (continued) CLM vs ALPHA CHARACTERISTICS





DATA SET SIGNAL      COUNTER      DATA DESCRIPTION      ELEV-R0      ELEV-R1      ELEV-L1      ELEV-R0

1000000      1000000      1000000      1000000      1000000      1000000      1000000      1000000

1000000      1000000      1000000      1000000      1000000      1000000      1000000      1000000

1000000      1000000      1000000      1000000      1000000      1000000      1000000      1000000

1000000      1000000      1000000      1000000      1000000      1000000      1000000      1000000

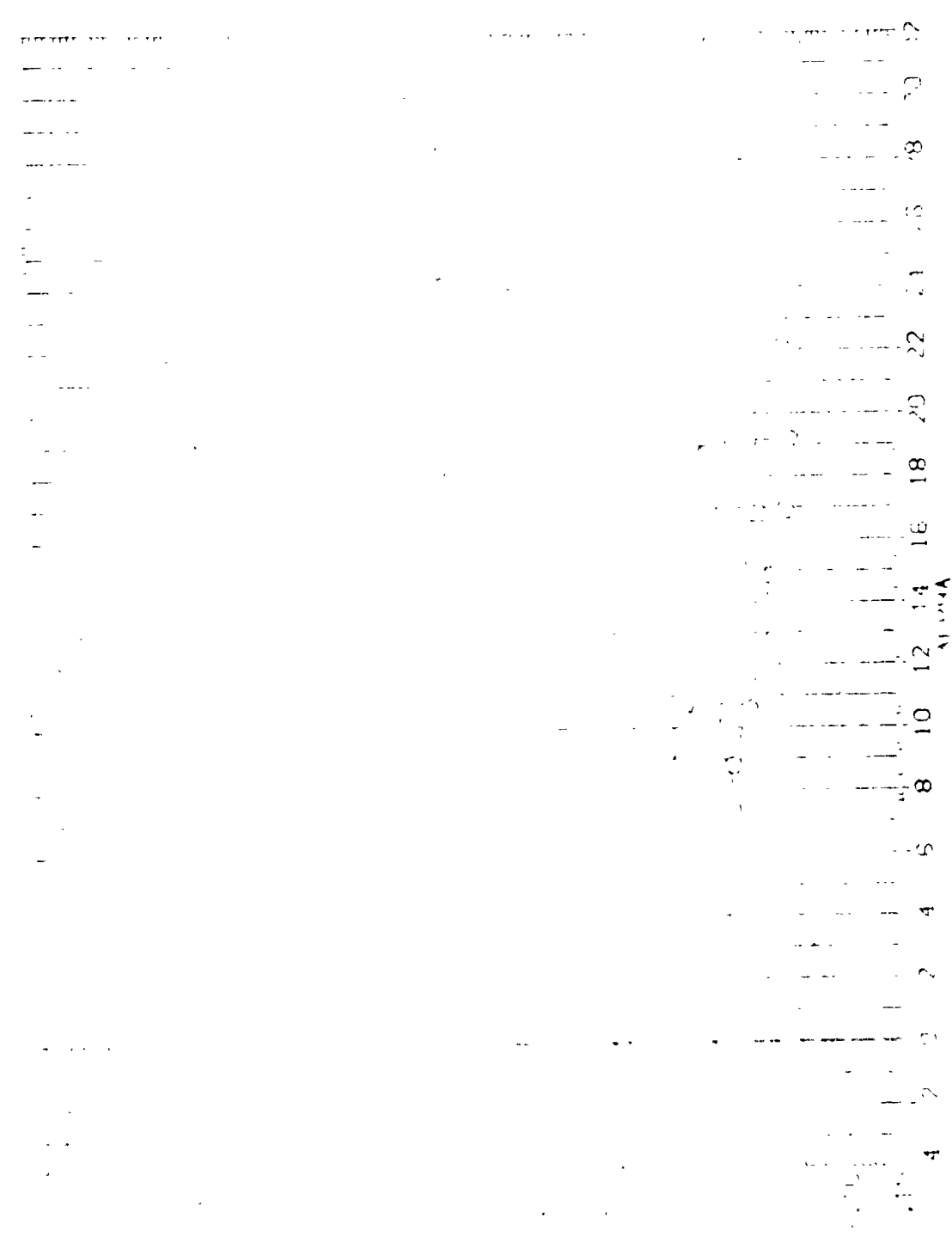


FIGURE 5. ELEVON PITCH CHARACTERISTICS

CADWACH 1000

1000

# DATA SET SUMMARY DESCRIPTION

NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

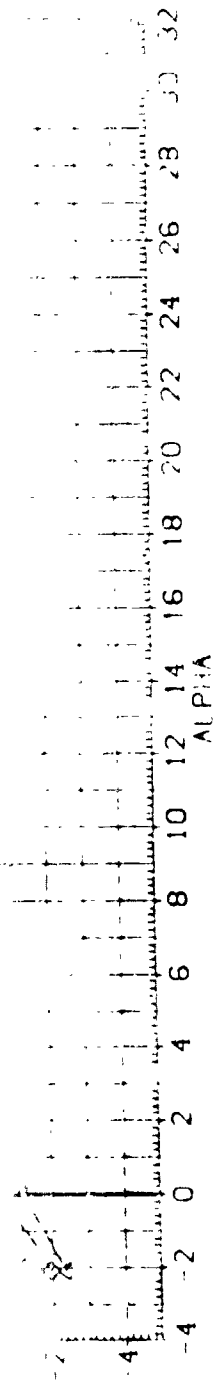


FIGURE 6. OUTBOARD FLUVON PITCH CHARACTERISTICS

(A)MACH = .60

DATA SET 1000 CONTROL ACTION DESCRIPTION  
 (A) MACH 0.80  
 (B) MACH 0.85  
 (C) MACH 0.90  
 (D) MACH 0.95  
 (E) MACH 1.00  
 (F) MACH 1.05  
 (G) MACH 1.10  
 (H) MACH 1.15  
 (I) MACH 1.20  
 (J) MACH 1.25  
 (K) MACH 1.30  
 (L) MACH 1.35  
 (M) MACH 1.40  
 (N) MACH 1.45  
 (O) MACH 1.50  
 (P) MACH 1.55  
 (Q) MACH 1.60  
 (R) MACH 1.65  
 (S) MACH 1.70  
 (T) MACH 1.75  
 (U) MACH 1.80  
 (V) MACH 1.85  
 (W) MACH 1.90  
 (X) MACH 1.95  
 (Y) MACH 2.00  
 (Z) MACH 2.05  
 (AA) MACH 2.10  
 (AB) MACH 2.15  
 (AC) MACH 2.20  
 (AD) MACH 2.25  
 (AE) MACH 2.30  
 (AF) MACH 2.35  
 (AG) MACH 2.40  
 (AH) MACH 2.45  
 (AI) MACH 2.50  
 (AJ) MACH 2.55  
 (AK) MACH 2.60  
 (AL) MACH 2.65  
 (AM) MACH 2.70  
 (AN) MACH 2.75  
 (AO) MACH 2.80  
 (AP) MACH 2.85  
 (AQ) MACH 2.90  
 (AR) MACH 2.95  
 (AS) MACH 3.00  
 (AT) MACH 3.05  
 (AU) MACH 3.10  
 (AV) MACH 3.15  
 (AW) MACH 3.20  
 (AX) MACH 3.25  
 (AY) MACH 3.30  
 (AZ) MACH 3.35  
 (BA) MACH 3.40  
 (BB) MACH 3.45  
 (BC) MACH 3.50  
 (BD) MACH 3.55  
 (BE) MACH 3.60  
 (BF) MACH 3.65  
 (BG) MACH 3.70  
 (BH) MACH 3.75  
 (BI) MACH 3.80  
 (BJ) MACH 3.85  
 (BK) MACH 3.90  
 (BL) MACH 3.95  
 (BM) MACH 4.00  
 (BN) MACH 4.05  
 (BO) MACH 4.10  
 (BP) MACH 4.15  
 (BQ) MACH 4.20  
 (BR) MACH 4.25  
 (BS) MACH 4.30  
 (BT) MACH 4.35  
 (BU) MACH 4.40  
 (BV) MACH 4.45  
 (BW) MACH 4.50  
 (BX) MACH 4.55  
 (BY) MACH 4.60  
 (BZ) MACH 4.65  
 (CA) MACH 4.70  
 (CB) MACH 4.75  
 (CC) MACH 4.80  
 (CD) MACH 4.85  
 (CE) MACH 4.90  
 (CF) MACH 4.95  
 (CG) MACH 5.00  
 (CH) MACH 5.05  
 (CI) MACH 5.10  
 (CJ) MACH 5.15  
 (CK) MACH 5.20  
 (CL) MACH 5.25  
 (CM) MACH 5.30  
 (CN) MACH 5.35  
 (CO) MACH 5.40  
 (CP) MACH 5.45  
 (CQ) MACH 5.50  
 (CR) MACH 5.55  
 (CS) MACH 5.60  
 (CT) MACH 5.65  
 (CU) MACH 5.70  
 (CV) MACH 5.75  
 (CW) MACH 5.80  
 (CX) MACH 5.85  
 (CY) MACH 5.90  
 (CZ) MACH 5.95  
 (DA) MACH 6.00  
 (DB) MACH 6.05  
 (DC) MACH 6.10  
 (DD) MACH 6.15  
 (DE) MACH 6.20  
 (DF) MACH 6.25  
 (DG) MACH 6.30  
 (DH) MACH 6.35  
 (DI) MACH 6.40  
 (DJ) MACH 6.45  
 (DK) MACH 6.50  
 (DL) MACH 6.55  
 (DM) MACH 6.60  
 (DN) MACH 6.65  
 (DO) MACH 6.70  
 (DP) MACH 6.75  
 (DQ) MACH 6.80  
 (DR) MACH 6.85  
 (DS) MACH 6.90  
 (DT) MACH 6.95  
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 (DV) MACH 7.05  
 (DW) MACH 7.10  
 (DX) MACH 7.15  
 (DY) MACH 7.20  
 (DZ) MACH 7.25  
 (EA) MACH 7.30  
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 (ED) MACH 7.45  
 (EE) MACH 7.50  
 (EF) MACH 7.55  
 (EG) MACH 7.60  
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 (EJ) MACH 7.75  
 (EK) MACH 7.80  
 (EL) MACH 7.85  
 (EM) MACH 7.90  
 (EN) MACH 7.95  
 (EO) MACH 8.00  
 (EP) MACH 8.05  
 (EQ) MACH 8.10  
 (ER) MACH 8.15  
 (ES) MACH 8.20  
 (ET) MACH 8.25  
 (EU) MACH 8.30  
 (EV) MACH 8.35  
 (EW) MACH 8.40  
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 (EY) MACH 8.50  
 (EZ) MACH 8.55  
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 (FC) MACH 8.70  
 (FD) MACH 8.75  
 (FE) MACH 8.80  
 (FF) MACH 8.85  
 (FG) MACH 8.90  
 (FH) MACH 8.95  
 (FI) MACH 9.00  
 (FJ) MACH 9.05  
 (FK) MACH 9.10  
 (FL) MACH 9.15  
 (FM) MACH 9.20  
 (FN) MACH 9.25  
 (FO) MACH 9.30  
 (FP) MACH 9.35  
 (FQ) MACH 9.40  
 (FR) MACH 9.45  
 (FS) MACH 9.50  
 (FT) MACH 9.55  
 (FU) MACH 9.60  
 (FV) MACH 9.65  
 (FW) MACH 9.70  
 (FX) MACH 9.75  
 (FY) MACH 9.80  
 (FZ) MACH 9.85  
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 (GB) MACH 9.95  
 (GC) MACH 10.00  
 (GD) MACH 10.05  
 (GE) MACH 10.10  
 (GF) MACH 10.15  
 (GG) MACH 10.20  
 (GH) MACH 10.25  
 (GI) MACH 10.30  
 (GJ) MACH 10.35  
 (GK) MACH 10.40  
 (GL) MACH 10.45  
 (GM) MACH 10.50  
 (GN) MACH 10.55  
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 (GP) MACH 10.65  
 (GQ) MACH 10.70  
 (GR) MACH 10.75  
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 (GT) MACH 10.85  
 (GU) MACH 10.90  
 (GV) MACH 10.95  
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 (HC) MACH 11.30  
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 (HE) MACH 11.40  
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 (HG) MACH 11.50  
 (HH) MACH 11.55  
 (HI) MACH 11.60  
 (HJ) MACH 11.65  
 (HK) MACH 11.70  
 (HL) MACH 11.75  
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 (HR) MACH 12.05  
 (HS) MACH 12.10  
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 (HV) MACH 12.25  
 (HW) MACH 12.30  
 (HX) MACH 12.35  
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 (HZ) MACH 12.45  
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 (IJ) MACH 12.95  
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 (IM) MACH 13.10  
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 (OL) MACH 20.85  
 (OM) MACH 20.90  
 (ON) MACH 20.95  
 (OO) MACH 21.00  
 (OP) MACH 21.05  
 (OQ) MACH 21.10  
 (OR) MACH 21.15  
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 (PF) MACH 21.85  
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 (PV) MACH 22.65  
 (PW) MACH 22.70  
 (PX) MACH 22.75  
 (PY) MACH 22.80  
 (PZ) MACH 22.85  
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 (QB) MACH 22.95  
 (QC) MACH 23.00  
 (QD) MACH 23.05  
 (QE) MACH 23.10  
 (QF) MACH 23.15  
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 (QH) MACH 23.25  
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 (QK) MACH 23.40  
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 (QU) MACH 23.90  
 (QV) MACH 23.95  
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 (QX) MACH 24.05  
 (QY) MACH 24.10  
 (QZ) MACH 24.15  
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 (RC) MACH 24.30  
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 (RF) MACH 24.45  
 (RG) MACH 24.50  
 (RH) MACH 24.55  
 (RI) MACH 24.60  
 (RJ) MACH 24.65  
 (RK) MACH 24.70  
 (RL) MACH 24.75  
 (RM) MACH 24.80  
 (RN) MACH 24.85  
 (RO) MACH 24.90  
 (RP) MACH 24.95  
 (RQ) MACH 25.00  
 (RR) MACH 25.05  
 (RS) MACH 25.10  
 (RT) MACH 25.15  
 (RU) MACH 25.20  
 (RV) MACH 25.25  
 (RW) MACH 25.30  
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 (RY) MACH 25.40  
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 (SB) MACH 25.55  
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 (SD) MACH 25.65  
 (SE) MACH 25.70  
 (SF) MACH 25.75  
 (SG) MACH 25.80  
 (SH) MACH 25.85  
 (SI) MACH 25.90  
 (SJ) MACH 25.95  
 (SK) MACH 26.00  
 (SL) MACH 26.05  
 (SM) MACH 26.10  
 (SN) MACH 26.15  
 (SO) MACH 26.20  
 (SP) MACH 26.25  
 (SQ) MACH 26.30  
 (SR) MACH 26.35  
 (SS) MACH 26.40  
 (ST) MACH 26.45  
 (SU) MACH 26.50  
 (SV) MACH 26.55  
 (SW) MACH 26.60  
 (SX) MACH 26.65  
 (SY) MACH 26.70  
 (SZ) MACH 26.75  
 (TA) MACH 26.80  
 (TB) MACH 26.85  
 (TC) MACH 26.90  
 (TD) MACH 26.95  
 (TE) MACH 27.00  
 (TF) MACH 27.05  
 (TG) MACH 27.10  
 (TH) MACH 27.15  
 (TI) MACH 27.20  
 (TJ) MACH 27.25  
 (TK) MACH 27.30  
 (TL) MACH 27.35  
 (TM) MACH 27.40  
 (TN) MACH 27.45  
 (TO) MACH 27.50  
 (TP) MACH 27.55  
 (TQ) MACH 27.60  
 (TR) MACH 27.65  
 (TS) MACH 27.70  
 (TT) MACH 27.75  
 (TU) MACH 27.80  
 (TV) MACH 27.85  
 (TW) MACH 27.90  
 (TX) MACH 27.95  
 (TY) MACH 28.00  
 (TZ) MACH 28.05  
 (UA) MACH 28.10  
 (UB) MACH 28.15  
 (UC) MACH 28.20  
 (UD) MACH 28.25  
 (UE) MACH 28.30  
 (UF) MACH 28.35  
 (UG) MACH 28.40  
 (UH) MACH 28.45  
 (UI) MACH 28.50  
 (UJ) MACH 28.55  
 (UK) MACH 28.60  
 (UL) MACH 28.65  
 (UM) MACH 28.70  
 (UN) MACH 28.75  
 (UO) MACH 28.80  
 (UP) MACH 28.85  
 (UQ) MACH 28.90  
 (UR) MACH 28.95  
 (US) MACH 29.00  
 (UT) MACH 29.05  
 (UU) MACH 29.10  
 (UV) MACH 29.15  
 (UW) MACH 29.20  
 (UX) MACH 29.25  
 (UY) MACH 29.30  
 (UZ) MACH 29.35  
 (VA) MACH 29.40  
 (VB) MACH 29.45  
 (VC) MACH 29.50  
 (VD) MACH 29.55  
 (VE) MACH 29.60  
 (VF) MACH 29.65  
 (VG) MACH 29.70  
 (VH) MACH 29.75  
 (VI) MACH 29.80  
 (VJ) MACH 29.85  
 (VK) MACH 29.90  
 (VL) MACH 29.95  
 (VM) MACH 30.00  
 (VN) MACH 30.05  
 (VO) MACH 30.10  
 (VP) MACH 30.15  
 (VQ) MACH 30.20  
 (VR) MACH 30.25  
 (VS) MACH 30.30  
 (VT) MACH 30.35  
 (VU) MACH 30.40  
 (VV) MACH 30.45  
 (VW) MACH 30.50  
 (VX) MACH 30.55  
 (VY) MACH 30.60  
 (VZ) MACH 30.65  
 (WA) MACH 30.70  
 (WB) MACH 30.75  
 (WC) MACH 30.80  
 (WD) MACH 30.85  
 (WE) MACH 30.90  
 (WF) MACH 30.95  
 (WG) MACH 31.00  
 (WH) MACH 31.05  
 (WI) MACH 31.10  
 (WJ) MACH 31.15  
 (WK) MACH 31.20  
 (WL) MACH 31.25  
 (WM) MACH 31.30  
 (WN) MACH 31.35  
 (WO) MACH 31.40  
 (WP) MACH 31.45  
 (WQ) MACH 31.50  
 (WR) MACH 31.55  
 (WS) MACH 31.60  
 (WT) MACH 31.65  
 (WU) MACH 31.70  
 (WV) MACH 31.75  
 (WW) MACH 31.80  
 (WX) MACH 31.85  
 (WY) MACH 31.90  
 (WZ) MACH 31.95  
 (XA) MACH 32.00  
 (XB) MACH 32.05  
 (XC) MACH 32.10  
 (XD) MACH 32.15  
 (XE) MACH 32.20  
 (XF) MACH 32.25  
 (XG) MACH 32.30  
 (XH) MACH 32.35  
 (XI) MACH 32.40  
 (XJ) MACH 32.45  
 (XK) MACH 32.50  
 (XL) MACH 32.55  
 (XM) MACH 32.60  
 (XN) MACH 32.65  
 (XO) MACH 32.70  
 (XP) MACH 32.75  
 (XQ) MACH 32.80  
 (XR) MACH 32.85  
 (XS) MACH 32.90  
 (XT) MACH 32.95  
 (XU) MACH 33.00  
 (XV) MACH 33.05  
 (XW) MACH 33.10  
 (XX) MACH 33.15  
 (XY) MACH 33.20  
 (XZ) MACH 33.25  
 (YA) MACH 33.30  
 (YB) MACH 33.35  
 (YC) MACH 33.40  
 (YD) MACH 33.45  
 (YE) MACH 33.50  
 (YF) MACH 33.55  
 (YG) MACH 33.60  
 (YH) MACH 33.65  
 (YI) MACH 33.70  
 (YJ) MACH 33.75  
 (YK) MACH 33.80  
 (YL) MACH 33.85  
 (YM) MACH 33.90  
 (YN) MACH 33.95  
 (YO) MACH 34.00  
 (YP) MACH 34.05  
 (YQ) MACH 34.10  
 (YR) MACH 34.15  
 (YS) MACH 34.20  
 (YT) MACH 34.25  
 (YU) MACH 34.30  
 (YV) MACH 34.35  
 (YW) MACH 34.40  
 (YX) MACH 34.45  
 (YZ) MACH 34.50  
 (ZA) MACH 34.55  
 (ZB) MACH 34.60  
 (ZC) MACH 34.65  
 (ZD) MACH 34.70  
 (ZE) MACH 34.75  
 (ZF) MACH 34.80  
 (ZG) MACH 34.85  
 (ZH) MACH 34.90  
 (ZI) MACH 34.95  
 (ZJ) MACH 35.00  
 (ZK) MACH 35.05  
 (ZL) MACH 35.10  
 (ZM) MACH 35.15  
 (ZN) MACH 35.20  
 (ZO) MACH 35.25  
 (ZP) MACH 35.30  
 (ZQ) MACH 35.35  
 (ZR) MACH 35.40  
 (ZS) MACH 35.45  
 (ZT) MACH 35.50  
 (ZU) MACH 35.55  
 (ZV) MACH 35.60  
 (ZW) MACH 35.65  
 (ZX) MACH 35.70  
 (ZY) MACH 35.75  
 (ZZ) MACH 35.80

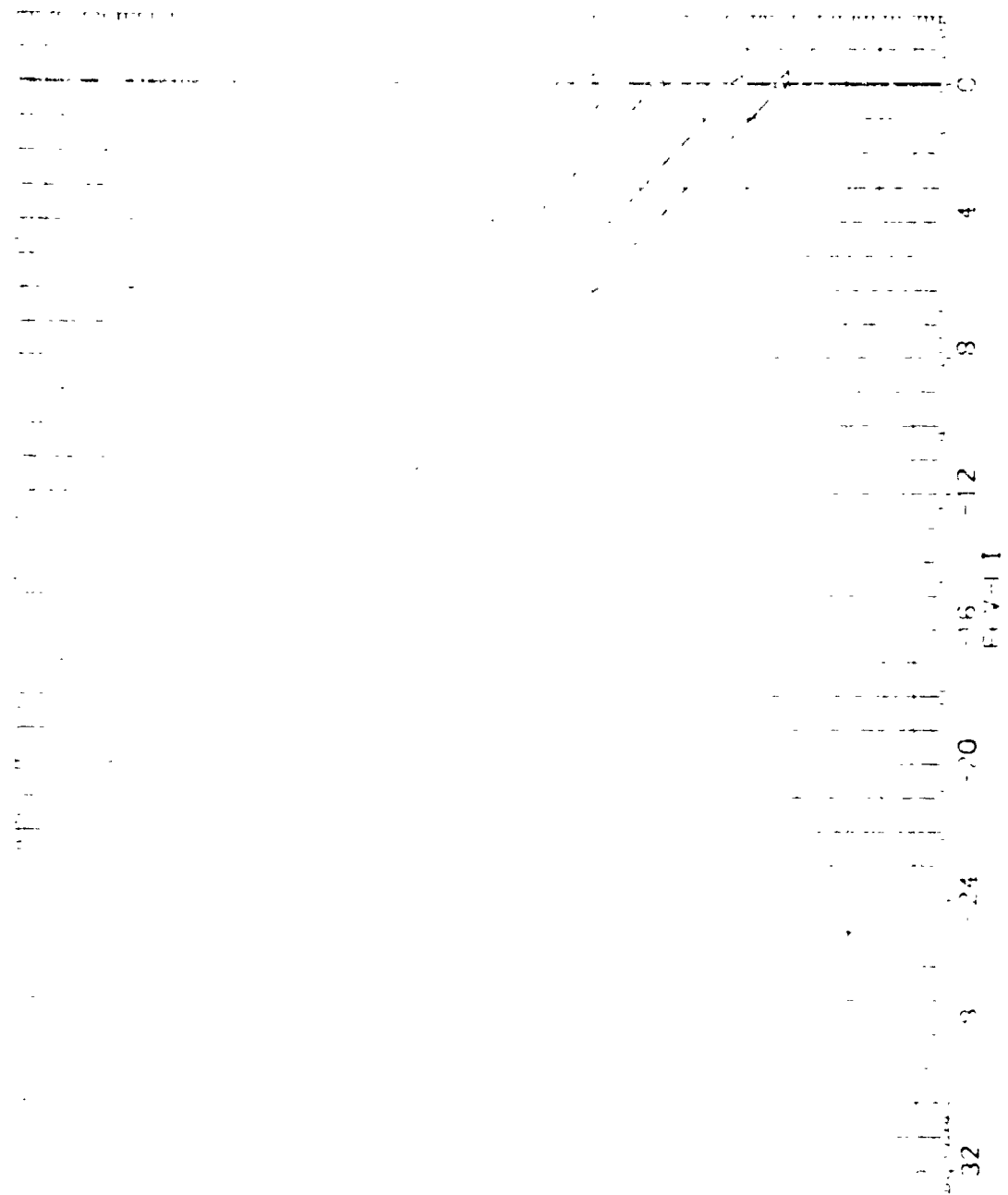


FIGURE 7. FULL SPAN LIFTON PITCH CONTROL EFFECTIVENESS

(A) MACH - .80

DATA SET SYMBOL CONFIGURATION FOR SOURCE POSITION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

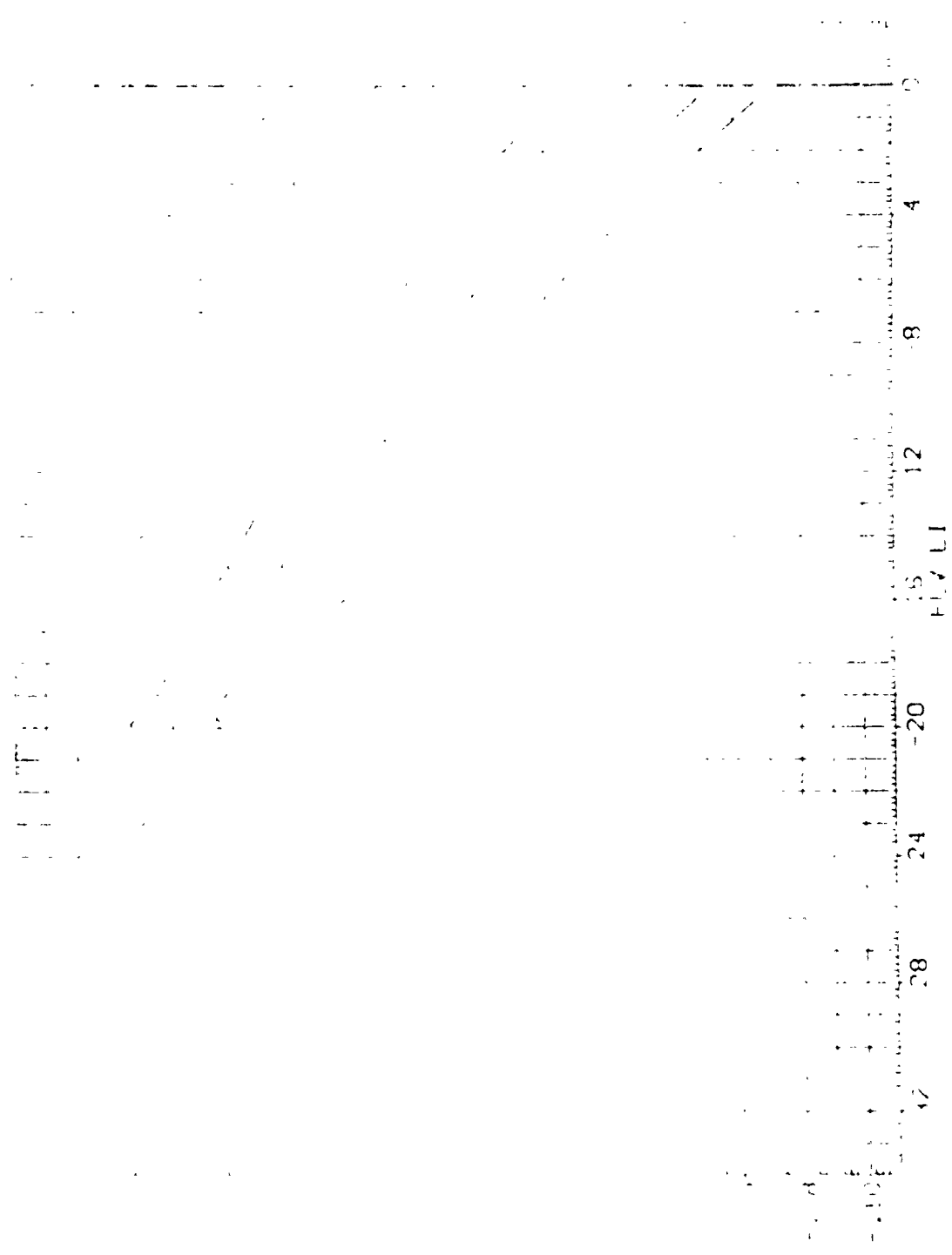


FIGURE 7. FIVE SPAN FIVE PITCH CONTROL EFFECTIVENESS  
(B, MACH = .80)



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
A-18 8-F	PI 600	HI 3000A
A-16 9-F	PI 600	HI 3000A
A-17 9-F	PI 600	HI 3000A
A-19 8-F	PI 600	HI 3000A

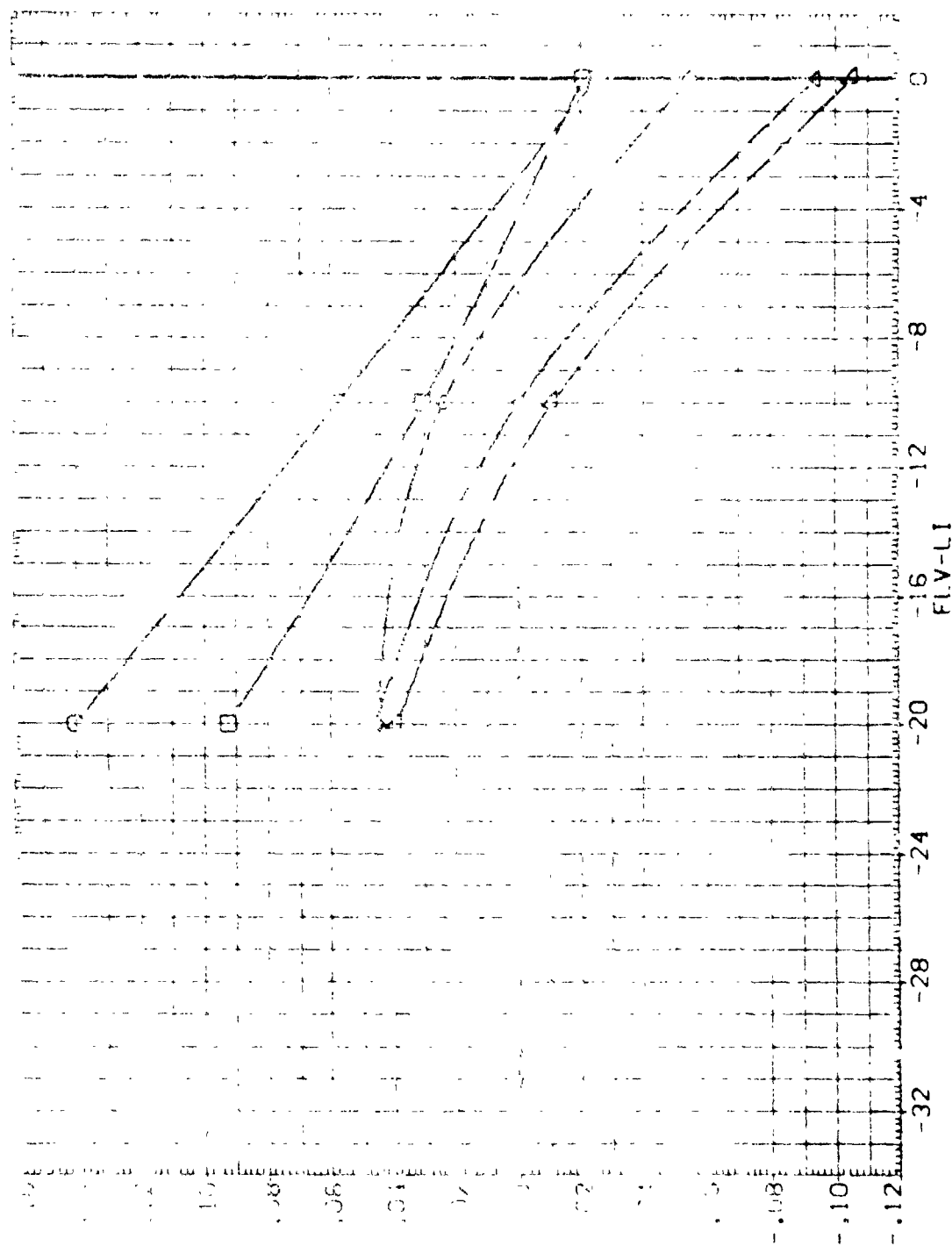


FIGURE 7. FULL SPAN ELEVEN PITCH CONTROL EFFECTIVENESS

$$(D) \text{MACH} = .30$$

30

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(B1)F01	LA-48 8-FT TPT 580 R1-0000	0.00
(B1)F02	LA-48 8-FT TPT 580 R1-0000	5.000
(B1)F03	LA-48 8-FT TPT 580 R1-0000	10.000
(B1)F04	LA-48 8-FT TPT 580 R1-0000	15.000
(B1)F05	LA-48 8-FT TPT 580 R1-0000	18.000

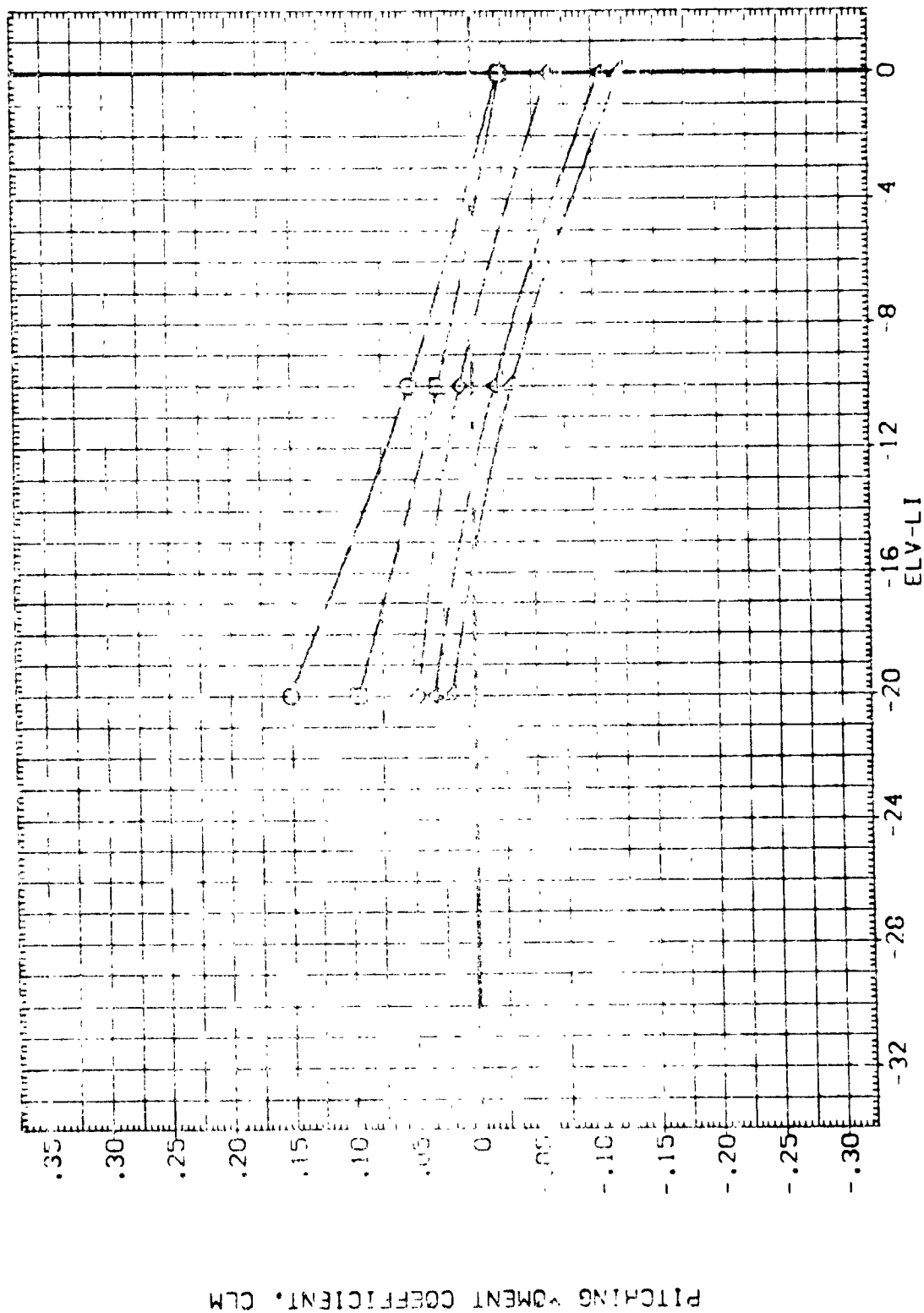


FIGURE 7. FULL SPAN ELEVON PITCH CONTROL EFFECTIVENESS

(E)MACH = .92



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA

(B-1501)	A 48 8 FT TPT 090 RI-0898/139 098 SPL IT ELEVON	0.00
(B-1502)	A 48 8 FT TPT 090 RI-0898/139 098 SPL IT ELEVON	5.00
(B-1503)	A 48 8 FT TPT 090 RI-0898/139 098 SPL IT ELEVON	10.00
(B-1504)	A 48 8 FT TPT 090 RI-0898/139 098 SPL IT ELEVON	15.00
(B-1505)	A 48 8 FT TPT 090 RI-0898/139 098 SPL IT ELEVON	18.00

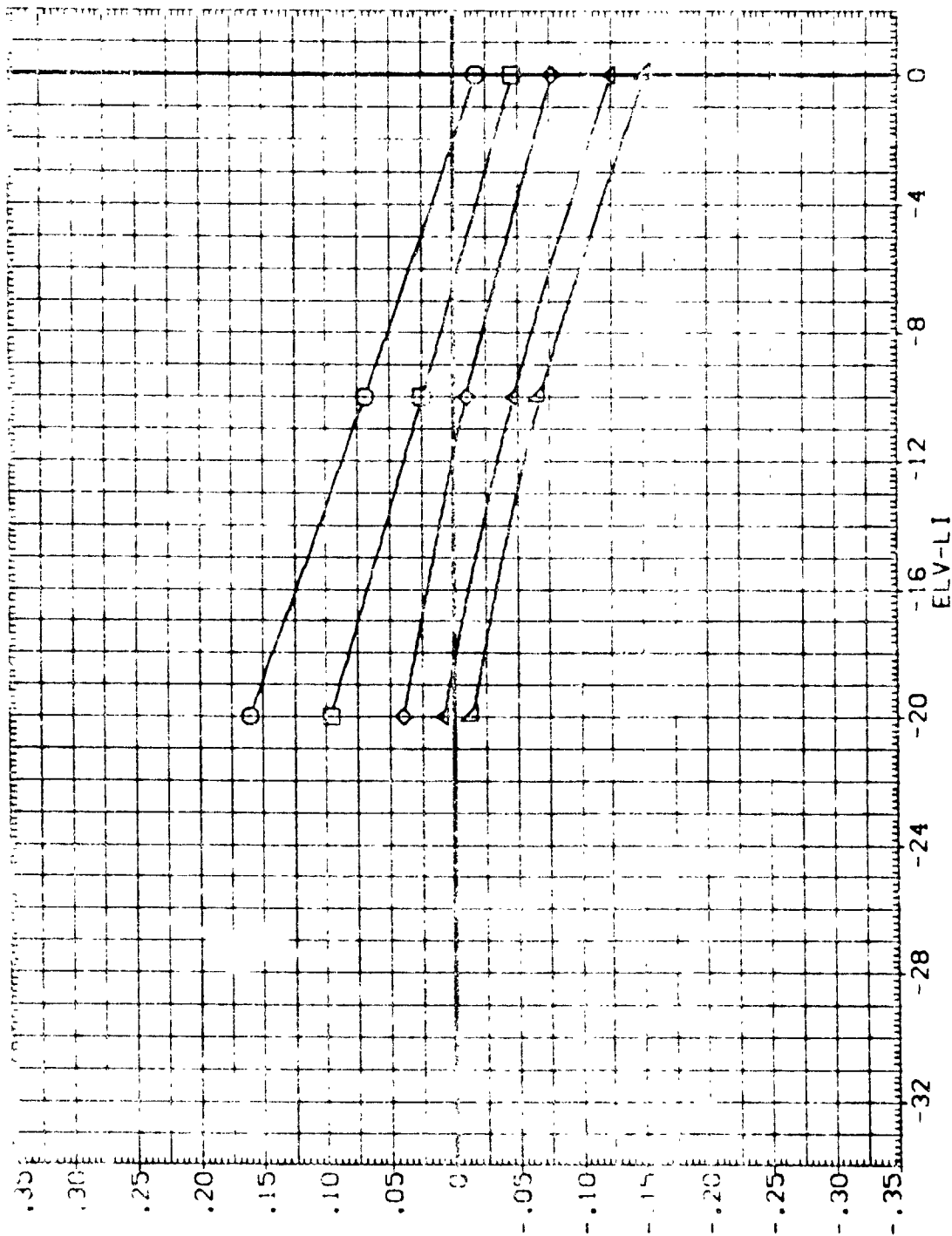
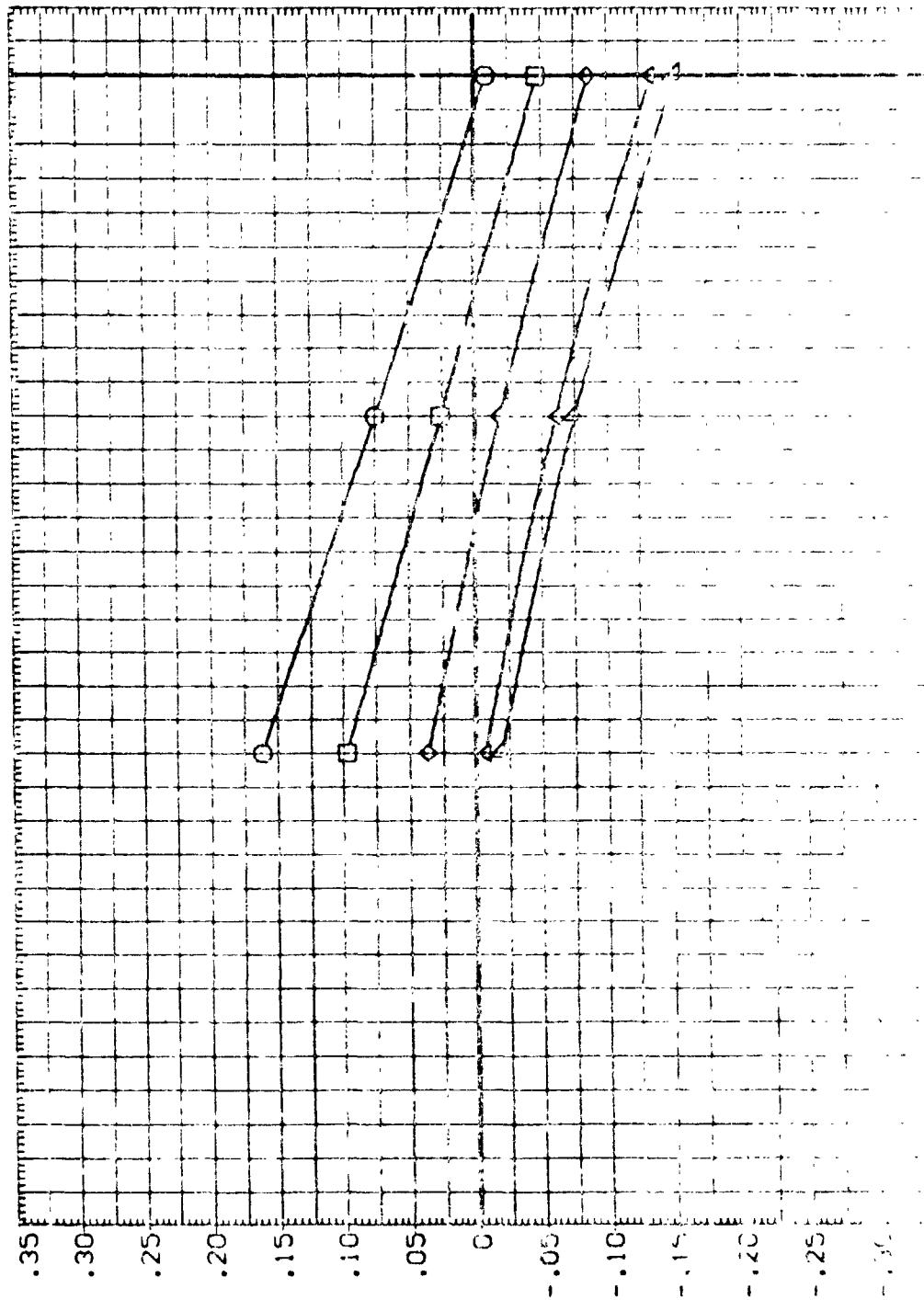


FIGURE 7. FINAL SPAN ELEVON PITCH CONTROL EFFECTIVENESS

(F)MACH = .95

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA
(B-1F01)	LA-18 3-1 101	500 RI-0893/35 CUB SPLIT ELEVON	0.00
(B-1F02)	LA-18 3-1 101	500 RI-0893/35 CUB SPLIT ELEVON	5.00
(B-1F03)	LA-48 8-1 101	500 RI-0893/35 CUB SPLIT ELEVON	10.00
(B-1F04)	LA-48 8-1 101	500 RI-0893/35 CUB SPLIT ELEVON	15.00
(B-1F05)	LA-48 8-1 101	500 RI-0893/35 CUB SPLIT ELEVON	19.00



PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA

(B1F01)	LA-48 8-FT TPT 600 RI-0899/39	0.00
(B1F02)	LA-48 8-FT TPT 600 RI-0899/39	5.000
(B1F03)	LA-48 8-FT TPT 600 RI-0899/39	10.000
(B1F04)	LA-48 8-FT TPT 600 RI-0899/39	15.000
(B1F05)	LA-48 8-FT TPT 600 RI-0899/39	18.000

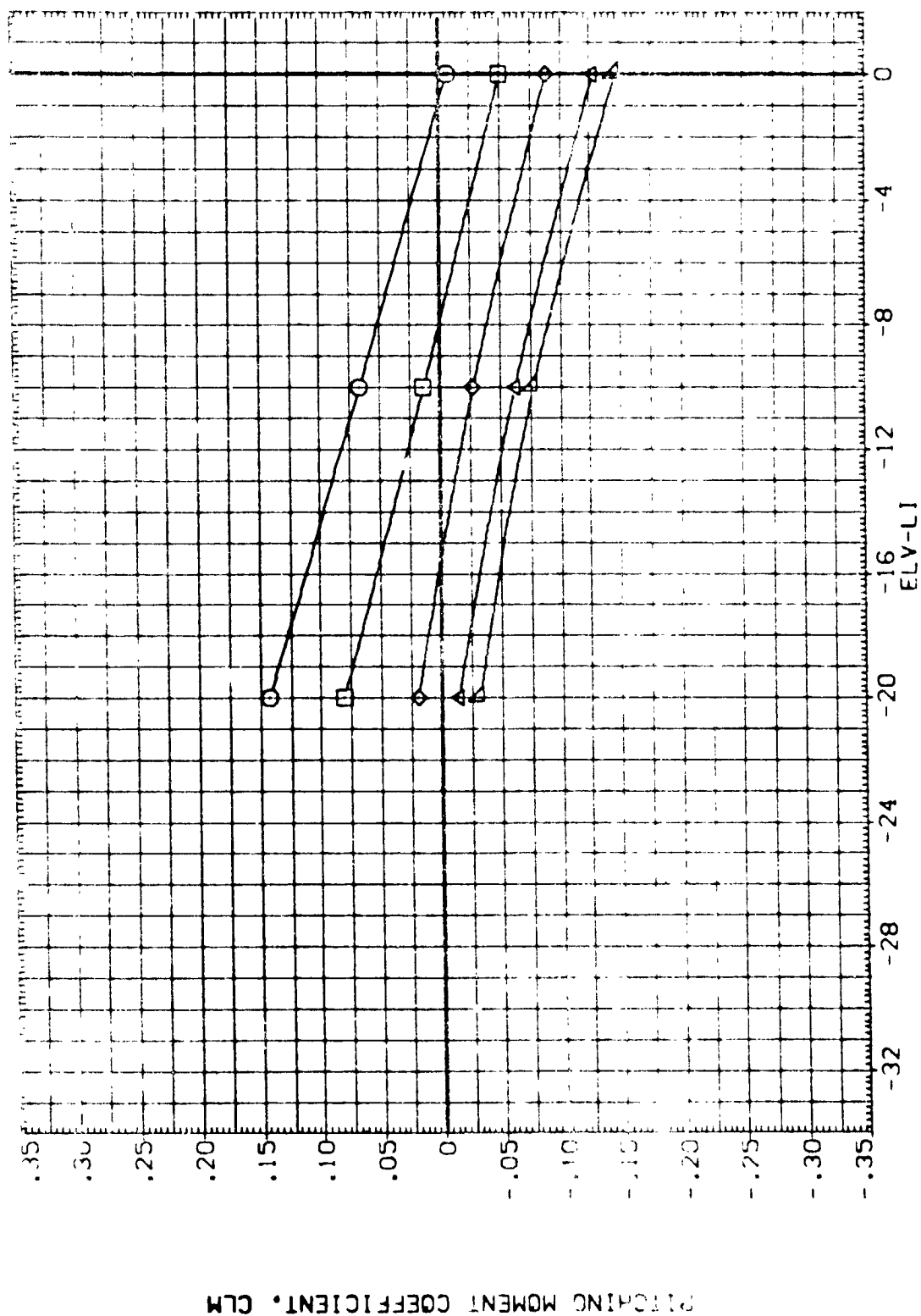


FIGURE 7. FULL SPAN ELEVON PITCH CONTROL EFFECTIVENESS

(H)MACH = 1.08

[illegible]

0167-9868

8-10-67

...

660  
661  
662  
663  
664  
665  
666

67-10000

11-88-1

18-AT

08-4

FIGURE 7. FULL SPAN ELEVEN PITCH CONTROL EFFECTIVENESS

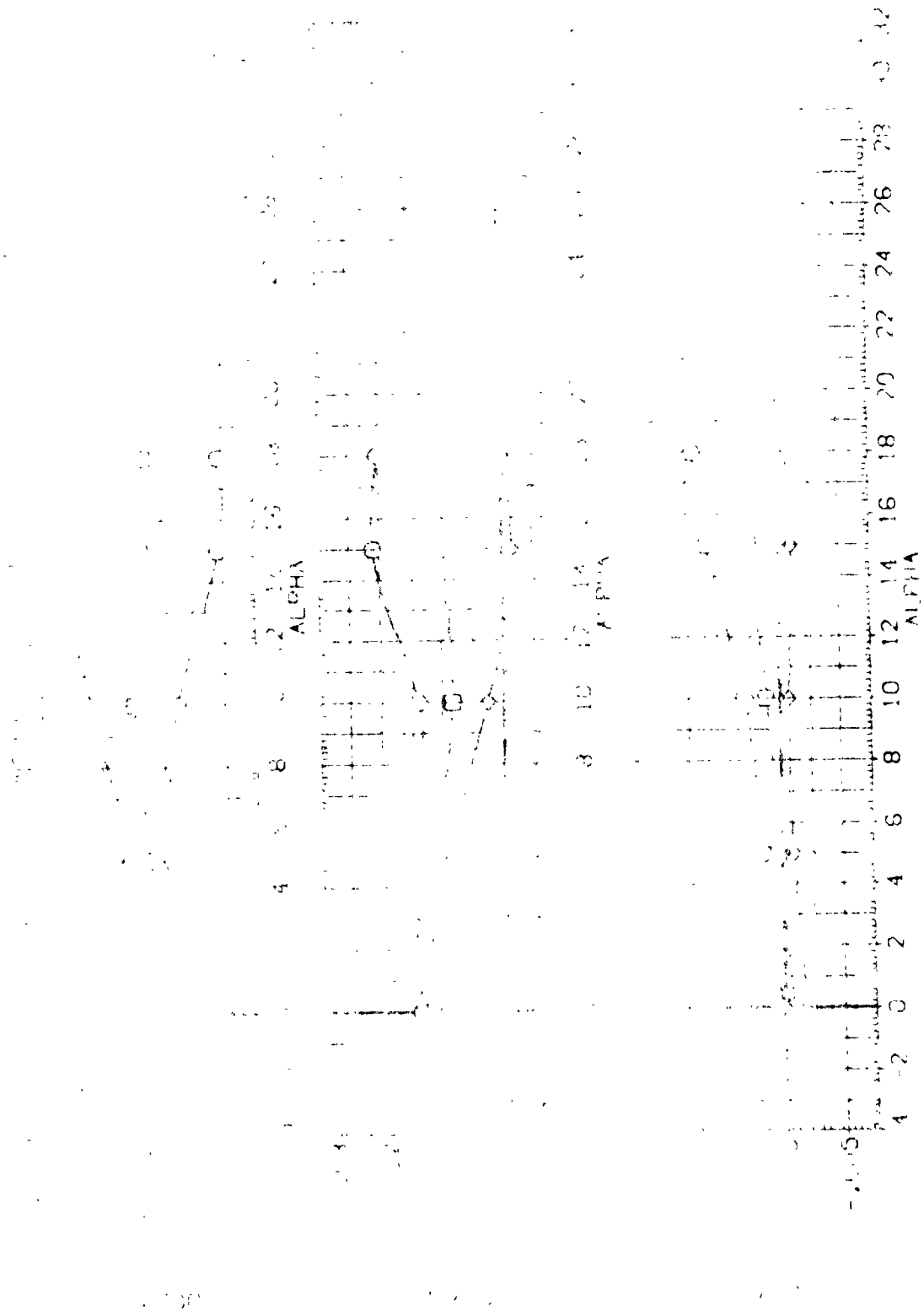


FIGURE 7. FULL SPAN ELEVEN PITCH CONTROL EFFECTIVENESS

(B)MACH = .80











DATA SET SYMBOL: CONFIGURATION DESCRIPTION: 0000 SPLIT ELEVON  
 (2-1001) 1-18 0 FT PT SEC 0-1898/35 000 SPLIT ELEVON  
 (2-1002) 1-19 0 FT PT SEC 0-1898/35 000 SPLIT ELEVON  
 (2-1003) 1-20 0 FT PT SEC 0-1898/35 000 SPLIT ELEVON  
 (2-1004) 1-21 0 FT PT SEC 0-1898/35 000 SPLIT ELEVON  
 (2-1005) 1-22 0 FT PT SEC 0-1898/35 000 SPLIT ELEVON  
 (2-1006) 1-23 0 FT PT SEC 0-1898/35 000 SPLIT ELEVON

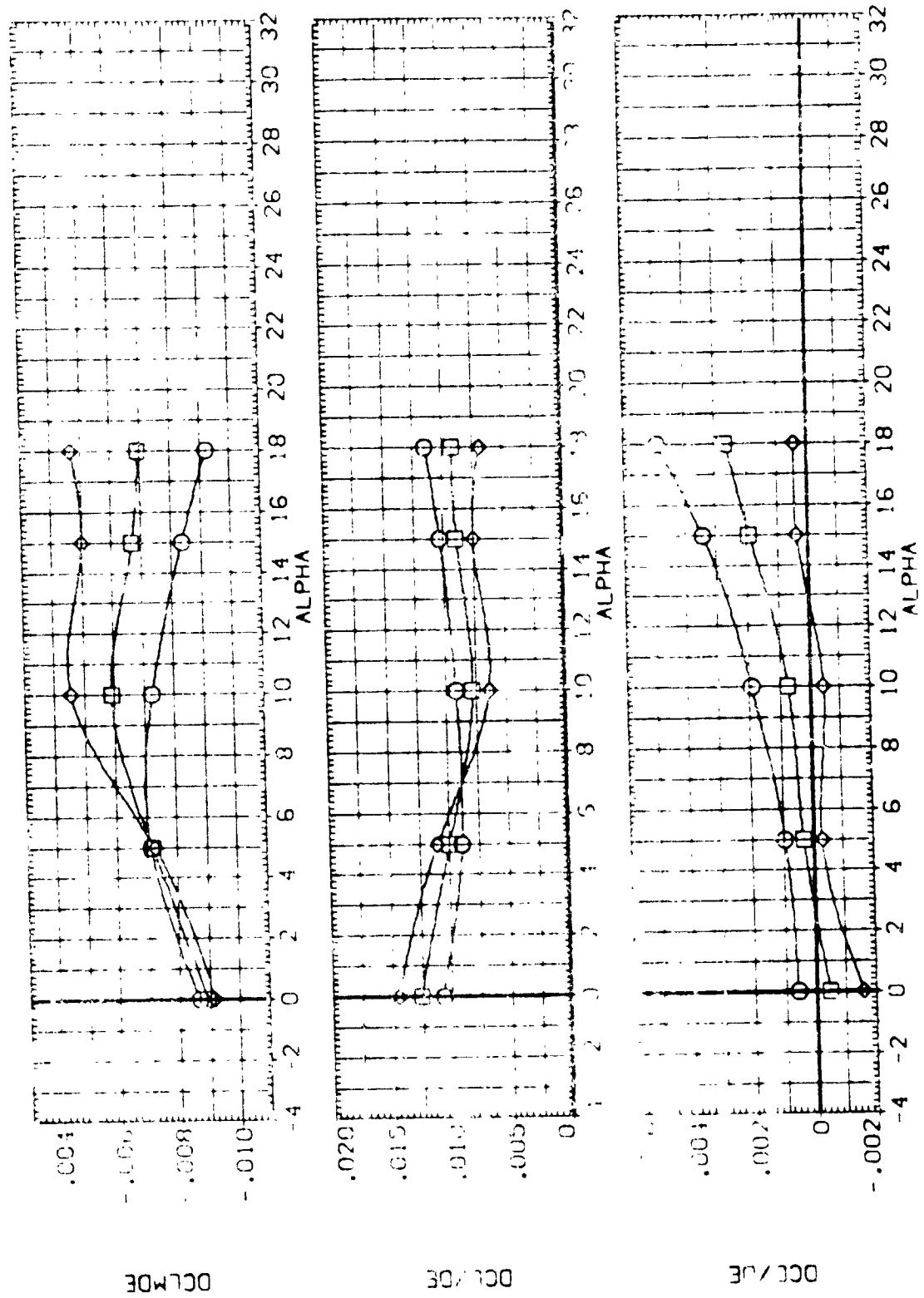
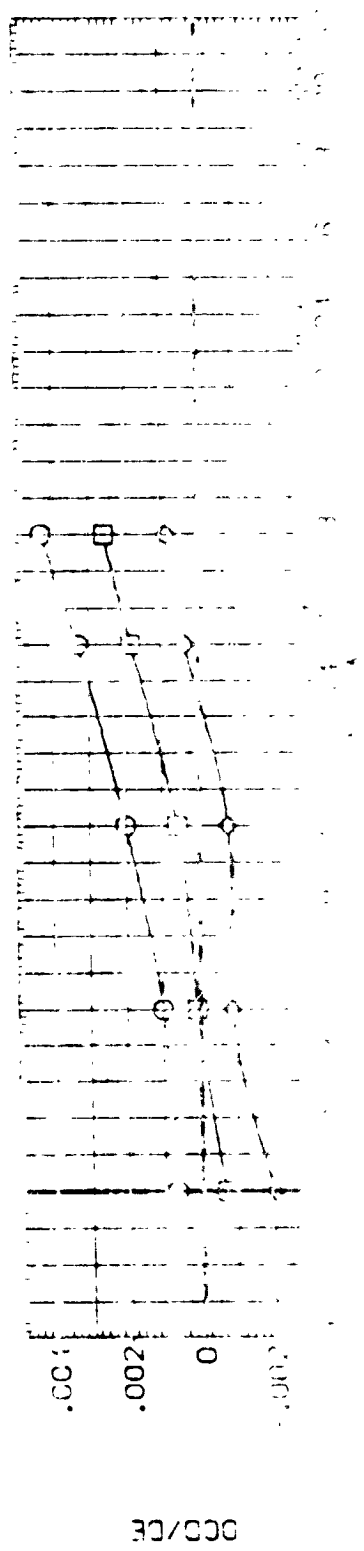
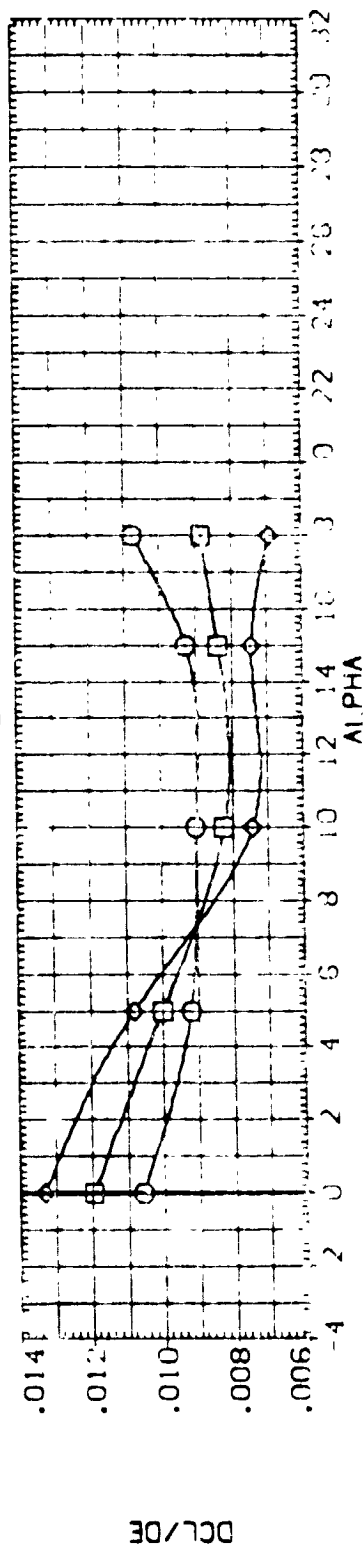
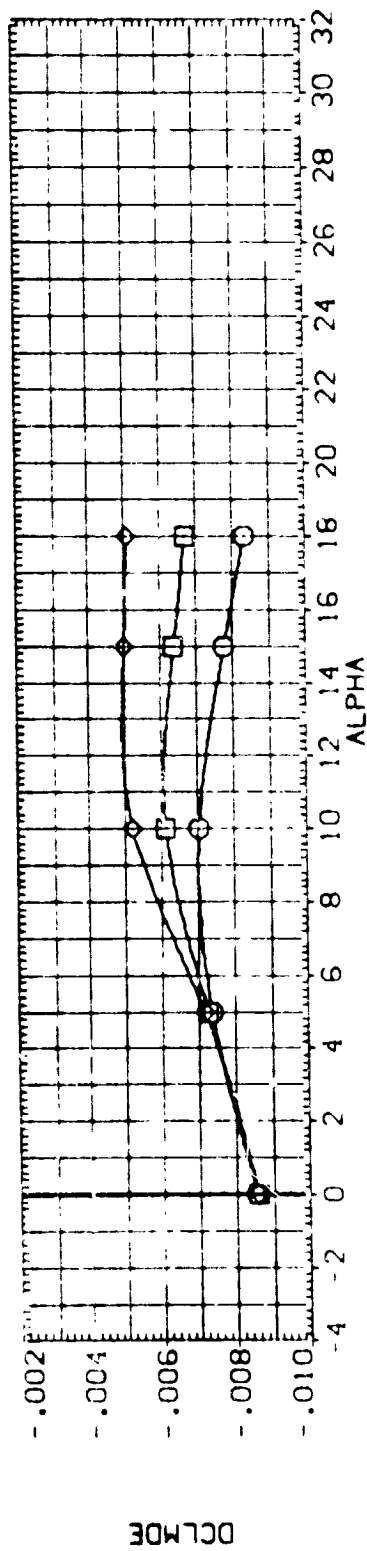


FIGURE 7. FULL SPAN ELEVON PITCH CONTROL EFFECTIVENESS

(F)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION

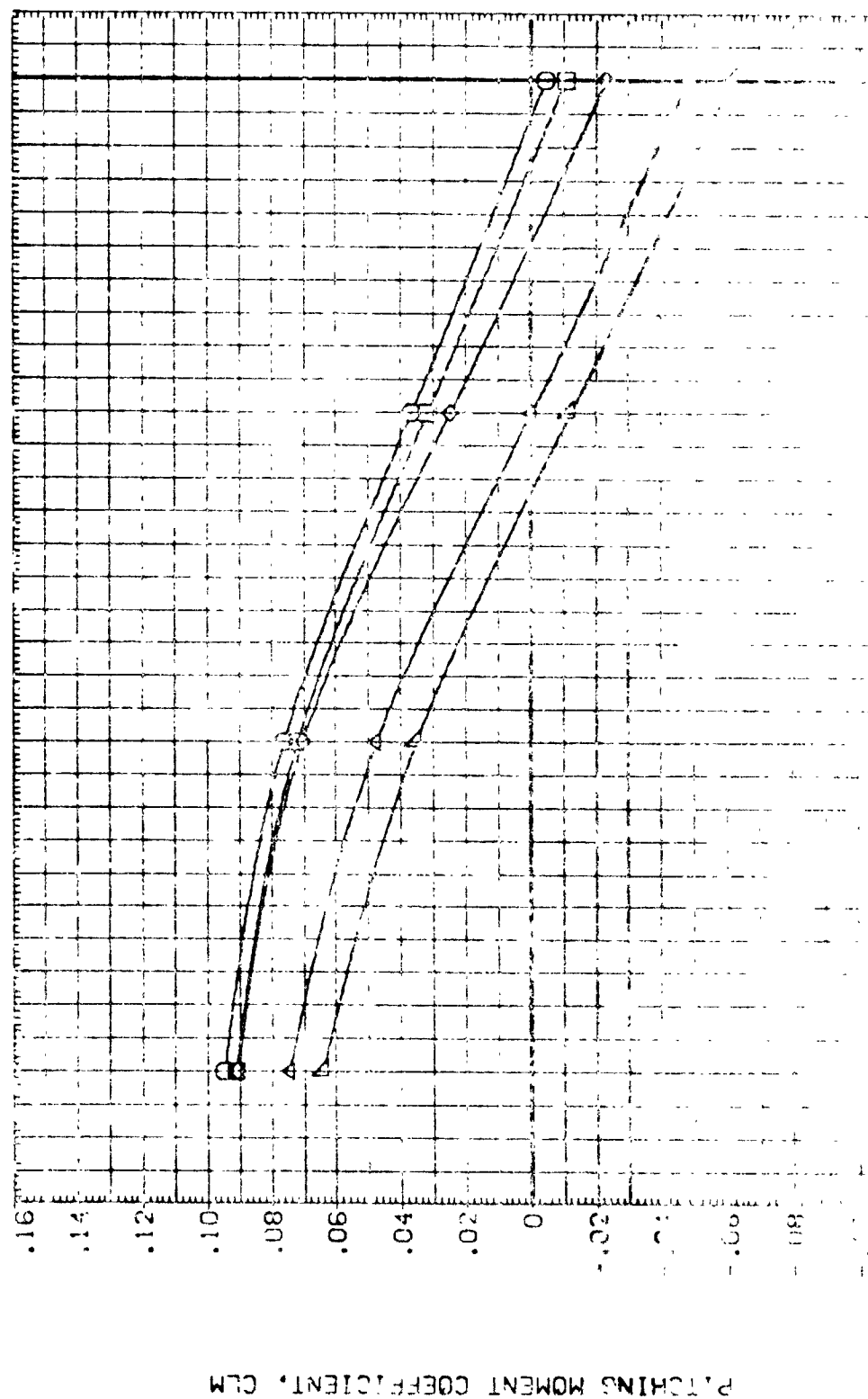
LA-48	8-41	1PT	680	R1-0898/139	0-48	SP-11	ELEVON	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(C-1001)	8-41	1PT	680	R1-0898/139	0-48	SP-11	ELEVON	.000	.000	.000	.000
(C-1005)	8-41	1PT	680	R1-0898/139	0-48	SP-11	ELEVON	-10.000	-10.000	-10.000	-10.000
(C-1005)	8-41	1PT	680	R1-0898/139	0-48	SP-11	ELEVON	-20.000	-20.000	-20.000	-20.000





DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA
08-101	LA-13	8-FT IPT 580 R-0893/38	0.000
08-102	LA-13	8-FT IPT 580 R-0893/38	5.000
08-103	LA-13	8-FT IPT 580 R-0893/38	10.000
08-104	LA-13	8-FT IPT 580 R-0893/38	15.000
08-105	LA-13	8-FT IPT 580 R-0893/38	18.000



DATA SET	NO. OF OBS.	NO. OF VARS.	NO. OF MISSING
01	18	1	0
02	18	1	0
03	18	1	0
04	18	1	0
05	18	1	0
06	18	1	0
07	18	1	0
08	18	1	0
09	18	1	0
10	18	1	0
11	18	1	0
12	18	1	0
13	18	1	0
14	18	1	0
15	18	1	0
16	18	1	0
17	18	1	0
18	18	1	0
19	18	1	0
20	18	1	0
21	18	1	0
22	18	1	0
23	18	1	0
24	18	1	0
25	18	1	0
26	18	1	0
27	18	1	0
28	18	1	0
29	18	1	0
30	18	1	0
31	18	1	0
32	18	1	0
33	18	1	0
34	18	1	0
35	18	1	0
36	18	1	0
37	18	1	0
38	18	1	0
39	18	1	0
40	18	1	0
41	18	1	0
42	18	1	0
43	18	1	0
44	18	1	0
45	18	1	0
46	18	1	0
47	18	1	0
48	18	1	0
49	18	1	0
50	18	1	0
51	18	1	0
52	18	1	0
53	18	1	0
54	18	1	0
55	18	1	0
56	18	1	0
57	18	1	0
58	18	1	0
59	18	1	0
60	18	1	0
61	18	1	0
62	18	1	0
63	18	1	0
64	18	1	0
65	18	1	0
66	18	1	0
67	18	1	0
68	18	1	0
69	18	1	0
70	18	1	0
71	18	1	0
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73	18	1	0
74	18	1	0
75	18	1	0
76	18	1	0
77	18	1	0
78	18	1	0
79	18	1	0
80	18	1	0
81	18	1	0
82	18	1	0
83	18	1	0
84	18	1	0
85	18	1	0
86	18	1	0
87	18	1	0
88	18	1	0
89	18	1	0
90	18	1	0
91	18	1	0
92	18	1	0
93	18	1	0
94	18	1	0
95	18	1	0
96	18	1	0
97	18	1	0
98	18	1	0
99	18	1	0
100	18	1	0

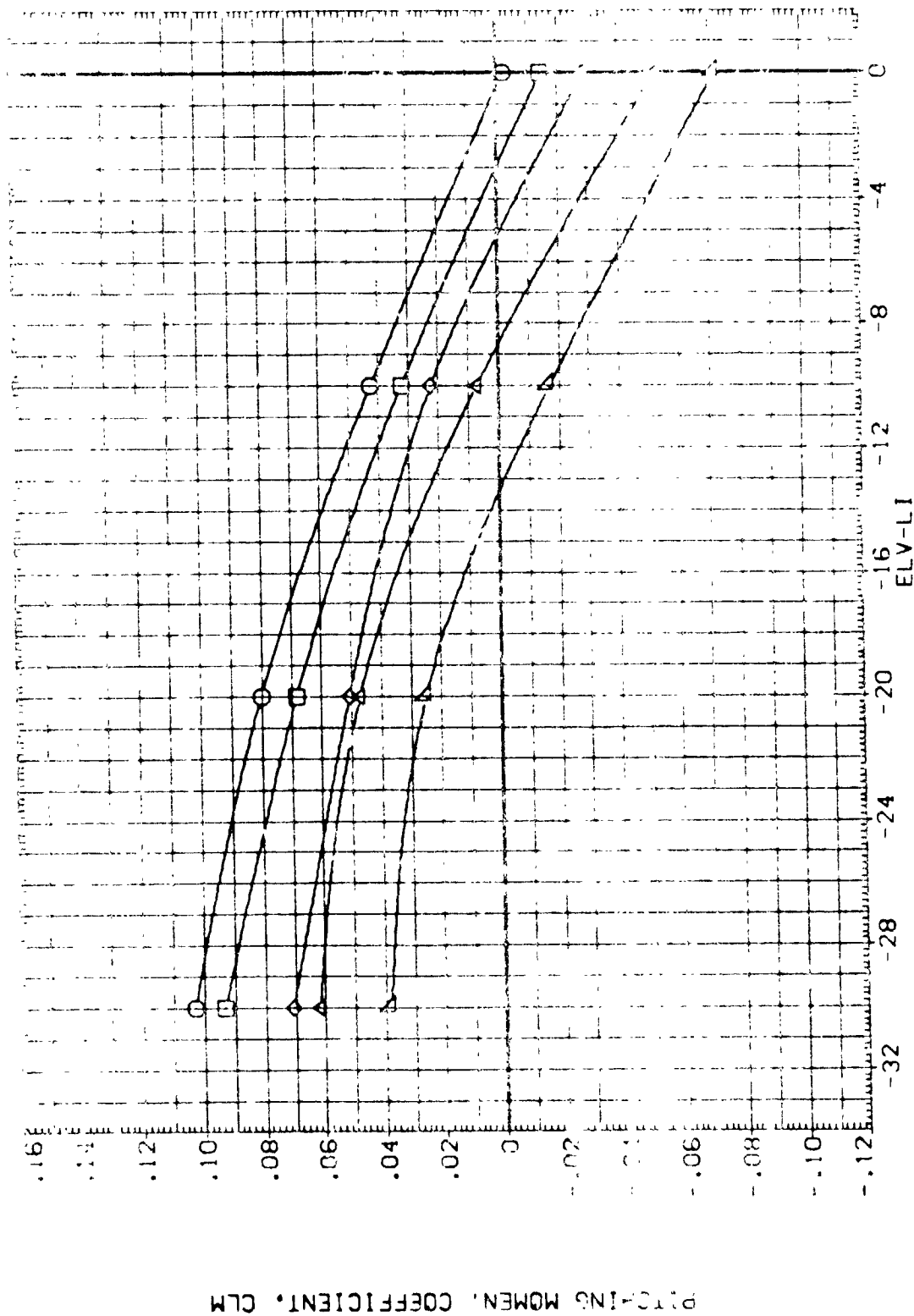


FIGURE 8. INBOARD ELEVON PITCH CONTROL EFFECTIVENESS, LOUDBOARD ELEVONS (NORMAL)

$$(R)_{MACH} = .30$$

ALPHA  
0.000  
0.000  
0.000  
0.000  
0.000

SPLIT ELEVON  
SPLIT ELEVON  
SPLIT ELEVON  
SPLIT ELEVON  
SPLIT ELEVON

0.000  
0.000  
0.000  
0.000  
0.000

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0.000  
0.000  
0.000

0.000  
0.000  
0.000  
0.000  
0.000

0.000  
0.000  
0.000  
0.000  
0.000

1.0  
 0.8  
 0.6  
 0.4  
 0.2  
 0.0  
 -0.2  
 -0.4  
 -0.6  
 -0.8  
 -1.0

INBOARD ELEVON PITCH CONTROL EFFECTIVENESS, (OUTBOARD ELEVONS - INBOARD)

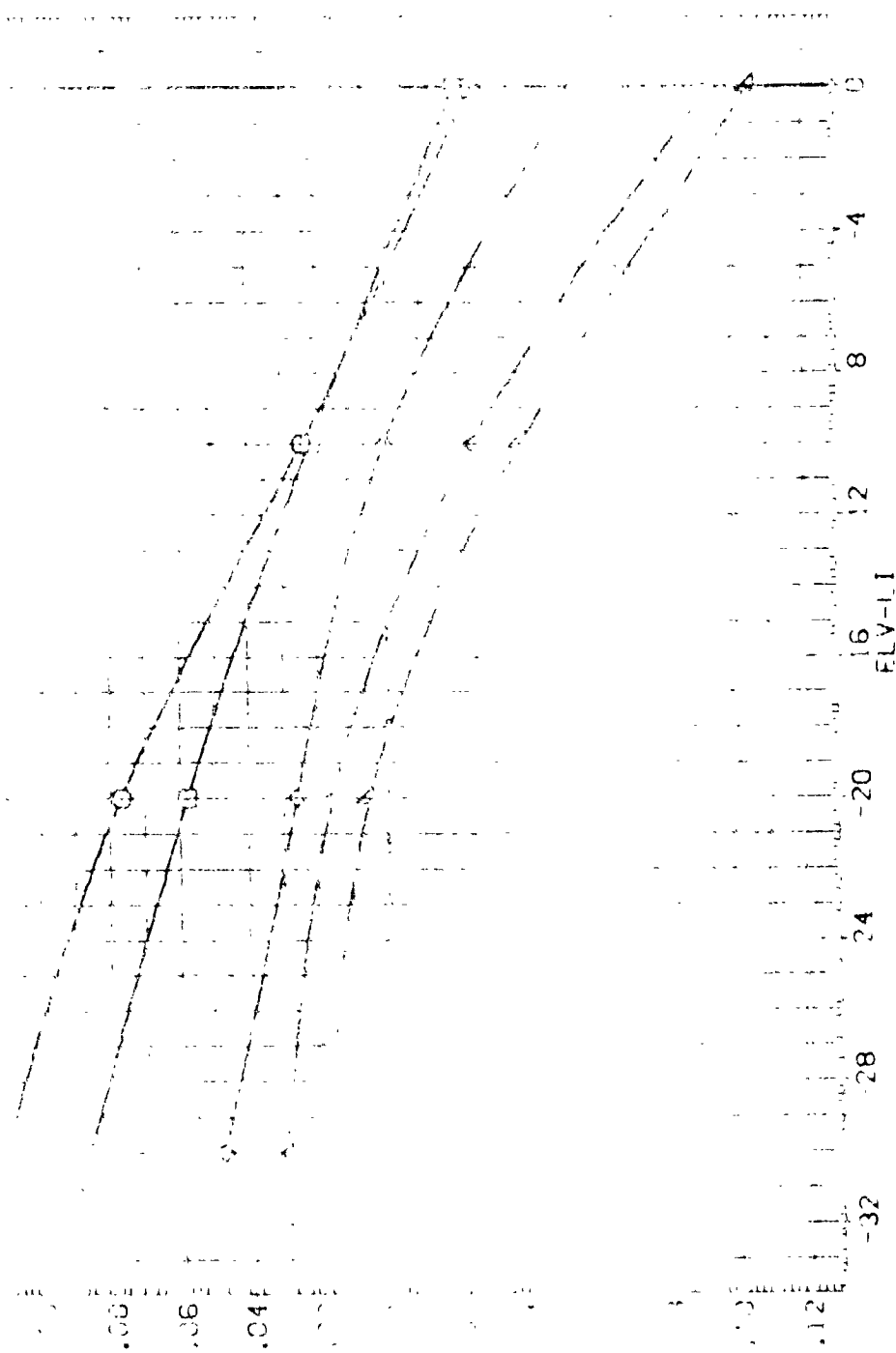


FIGURE 8. INBOARD ELEVON PITCH CONTROL EFFECTIVENESS, (OUTBOARD ELEVONS - INBOARD)  
 $(M)MACH = .30$



[illegible]

6605  
6606  
6607  
6608  
6609  
6610

NOV 16 1977

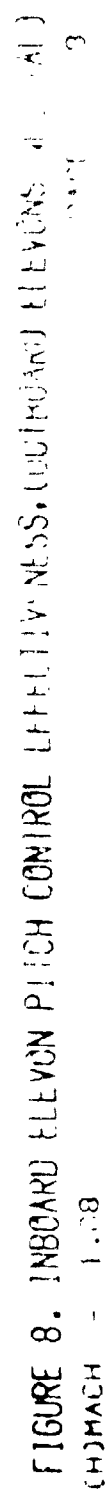
1000

**DATA SET SMD**



1.  $\frac{1}{2}$  inch  
 2.  $\frac{1}{4}$  inch  
 3.  $\frac{1}{8}$  inch  
 4.  $\frac{1}{16}$  inch  
 5.  $\frac{1}{32}$  inch  
 6.  $\frac{1}{64}$  inch  
 7.  $\frac{1}{128}$  inch  
 8.  $\frac{1}{256}$  inch  
 9.  $\frac{1}{512}$  inch  
 10.  $\frac{1}{1024}$  inch  
 11.  $\frac{1}{2048}$  inch  
 12.  $\frac{1}{4096}$  inch  
 13.  $\frac{1}{8192}$  inch  
 14.  $\frac{1}{16384}$  inch  
 15.  $\frac{1}{32768}$  inch  
 16.  $\frac{1}{65536}$  inch  
 17.  $\frac{1}{131072}$  inch  
 18.  $\frac{1}{262144}$  inch  
 19.  $\frac{1}{524288}$  inch  
 20.  $\frac{1}{1048576}$  inch  
 21.  $\frac{1}{2097152}$  inch  
 22.  $\frac{1}{4194304}$  inch  
 23.  $\frac{1}{8388608}$  inch  
 24.  $\frac{1}{16777216}$  inch  
 25.  $\frac{1}{33554432}$  inch  
 26.  $\frac{1}{67108864}$  inch  
 27.  $\frac{1}{134217728}$  inch  
 28.  $\frac{1}{268435456}$  inch  
 29.  $\frac{1}{536870912}$  inch  
 30.  $\frac{1}{1073741824}$  inch  
 31.  $\frac{1}{2147483648}$  inch  
 32.  $\frac{1}{4294967296}$  inch  
 33.  $\frac{1}{8589934592}$  inch  
 34.  $\frac{1}{17179869184}$  inch  
 35.  $\frac{1}{34359738368}$  inch  
 36.  $\frac{1}{68719476736}$  inch  
 37.  $\frac{1}{137438953472}$  inch  
 38.  $\frac{1}{274877906944}$  inch  
 39.  $\frac{1}{549755813888}$  inch  
 40.  $\frac{1}{1099511627776}$  inch  
 41.  $\frac{1}{2199023255552}$  inch  
 42.  $\frac{1}{4398046511104}$  inch  
 43.  $\frac{1}{8796093022208}$  inch  
 44.  $\frac{1}{17592186044416}$  inch  
 45.  $\frac{1}{35184372088832}$  inch  
 46.  $\frac{1}{70368744177664}$  inch  
 47.  $\frac{1}{140737488355328}$  inch  
 48.  $\frac{1}{281474976710656}$  inch  
 49.  $\frac{1}{562949953421312}$  inch  
 50.  $\frac{1}{1125899906842624}$  inch  
 51.  $\frac{1}{2251799813685248}$  inch  
 52.  $\frac{1}{4503599627370496}$  inch  
 53.  $\frac{1}{9007199254740992}$  inch  
 54.  $\frac{1}{18014398509481984}$  inch  
 55.  $\frac{1}{36028797018963968}$  inch  
 56.  $\frac{1}{72057594037927936}$  inch  
 57.  $\frac{1}{144115188075855872}$  inch  
 58.  $\frac{1}{288230376151711744}$  inch  
 59.  $\frac{1}{576460752303423488}$  inch  
 60.  $\frac{1}{1152921504606846976}$  inch  
 61.  $\frac{1}{2305843009213693952}$  inch  
 62.  $\frac{1}{4611686018427387904}$  inch  
 63.  $\frac{1}{9223372036854775808}$  inch  
 64.  $\frac{1}{18446744073709551616}$  inch  
 65.  $\frac{1}{36893488147419103232}$  inch  
 66.  $\frac{1}{73786976294838206464}$  inch  
 67.  $\frac{1}{147573952589676412928}$  inch  
 68.  $\frac{1}{295147905179352825856}$  inch  
 69.  $\frac{1}{590295810358705651712}$  inch  
 70.  $\frac{1}{1180591620717411303424}$  inch  
 71.  $\frac{1}{2361183241434822606848}$  inch  
 72.  $\frac{1}{4722366482869645213696}$  inch  
 73.  $\frac{1}{9444732965739290427392}$  inch  
 74.  $\frac{1}{18889465931478580854784}$  inch  
 75.  $\frac{1}{37778931862957161709568}$  inch  
 76.  $\frac{1}{75557863725914323419136}$  inch  
 77.  $\frac{1}{151115727451828646838272}$  inch  
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 82.  $\frac{1}{4835703278458516698824704}$  inch  
 83.  $\frac{1}{9671406556917033397649408}$  inch  
 84.  $\frac{1}{19342813113834066795298816}$  inch  
 85.  $\frac{1}{38685626227668133590597632}$  inch  
 86.  $\frac{1}{77371252455336267181195264}$  inch  
 87.  $\frac{1}{154742504910672534362390528}$  inch  
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 89.  $\frac{1}{618970019642690137449562112}$  inch  
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 93.  $\frac{1}{9903520314283042199192993792}$  inch  
 94.  $\frac{1}{19807040628566084398385987584}$  inch  
 95.  $\frac{1}{39614081257132168796771975168}$  inch  
 96.  $\frac{1}{79228162514264337593543950336}$  inch  
 97.  $\frac{1}{158456325028528675187087900672}$  inch  
 98.  $\frac{1}{316912650057057350374175801344}$  inch  
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 101.  $\frac{1}{2535301200456458802993406410752}$  inch  
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 106.  $\frac{1}{81129638414606681695789005144064}$  inch  
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 124.  $\frac{1}{21267647932558653966460912964485513216}$  inch  
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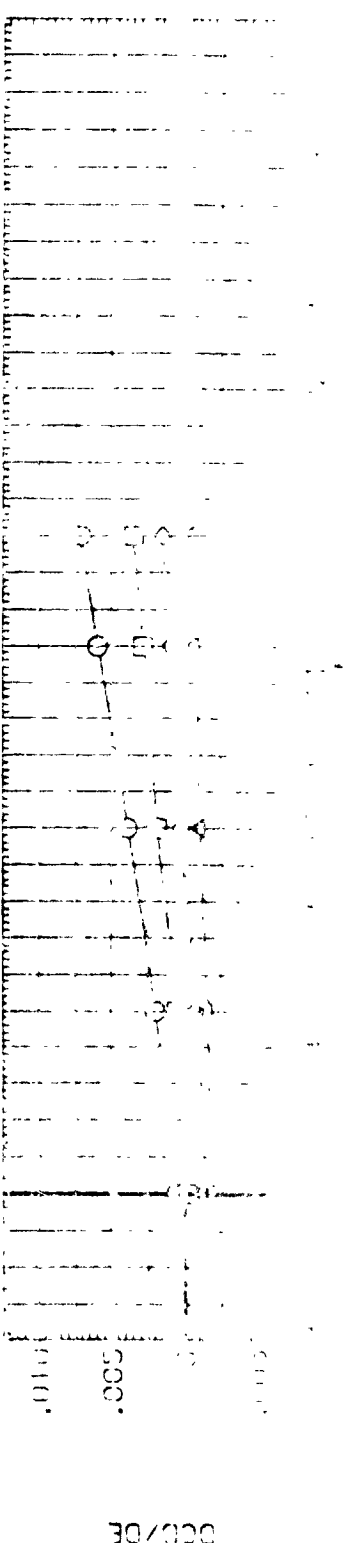
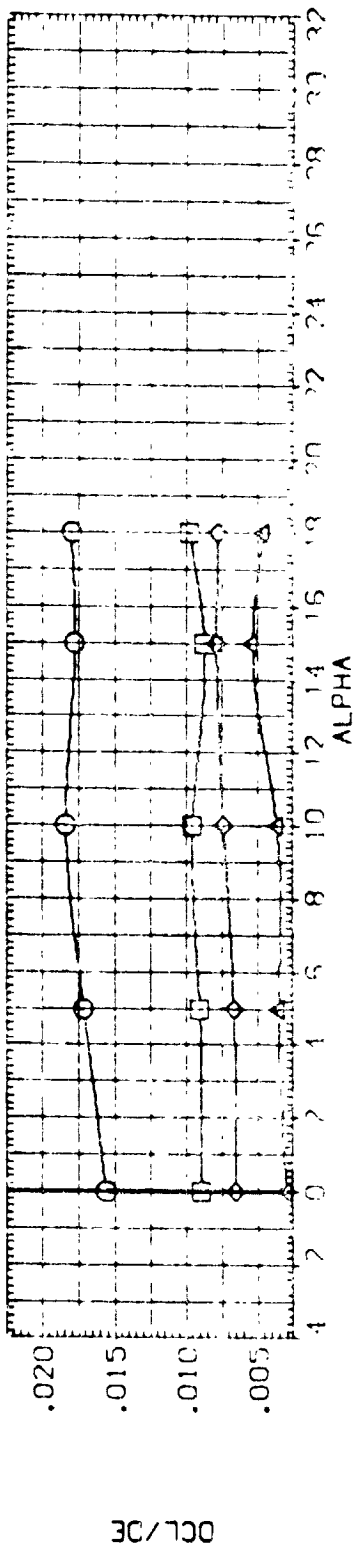
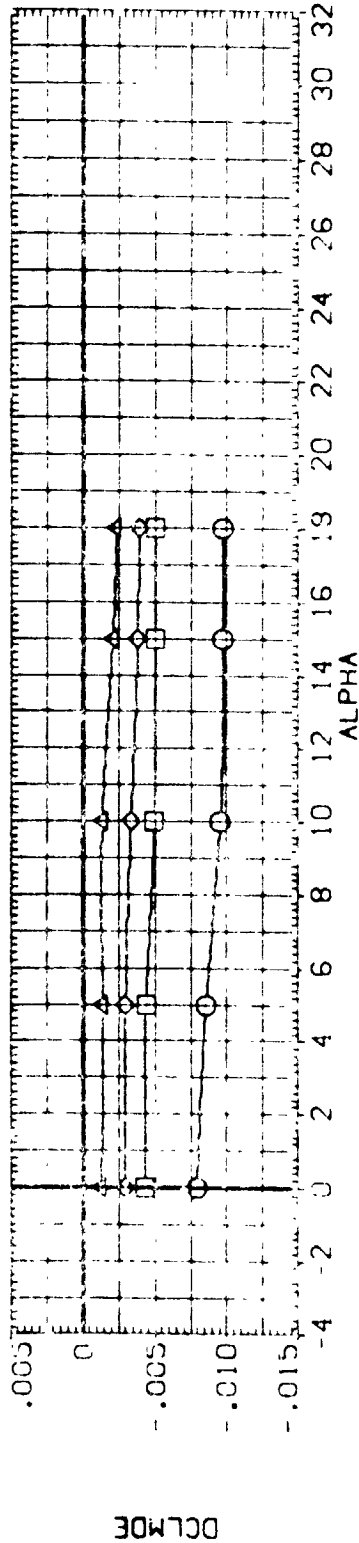




(H)MCH - 1.08

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CH1001)	LA-48 8-FT TPT 640 R	-0058/129	078	SPLIT ELEVON	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(CH1002)	LA-13 8-FT TPT 640 R	-0058/129	078	SPLIT ELEVON	.000	.000	.000	.000
(CH1003)	LA-13 8-FT TPT 640 R	-0058/129	078	SPLIT ELEVON	.000	-10.000	.000	.000
(CH1004)	LA-13 8-FT TPT 640 R	-0058/129	078	SPLIT ELEVON	.000	-20.000	.000	.000
(CH1005)	LA-13 8-FT TPT 640 R	-0058/129	078	SPLIT ELEVON	.000	-30.000	.000	.000



100-35461-100

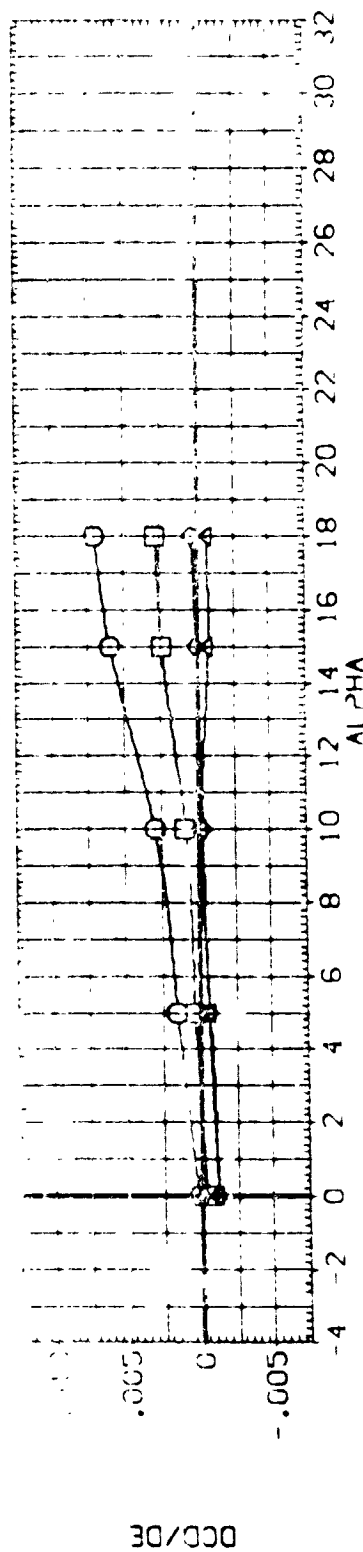
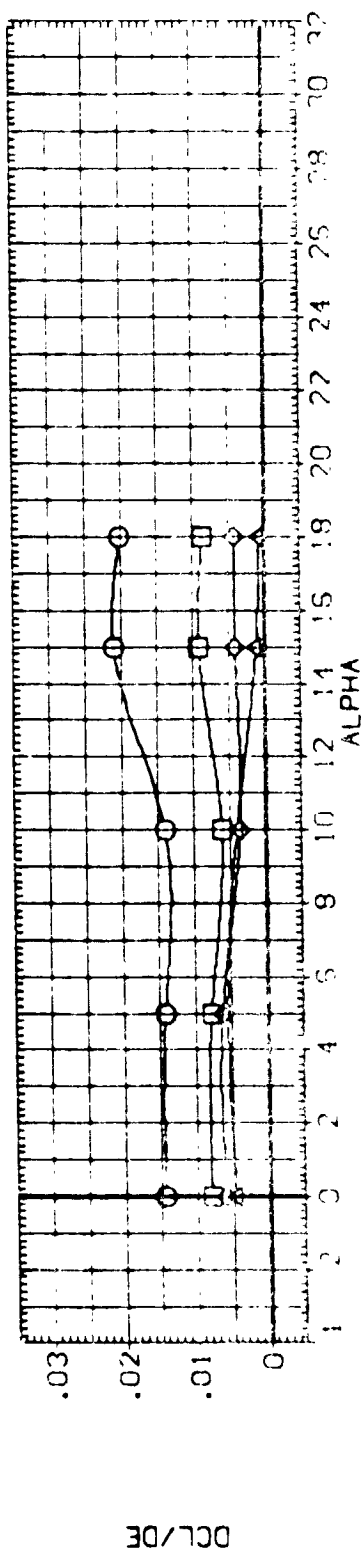
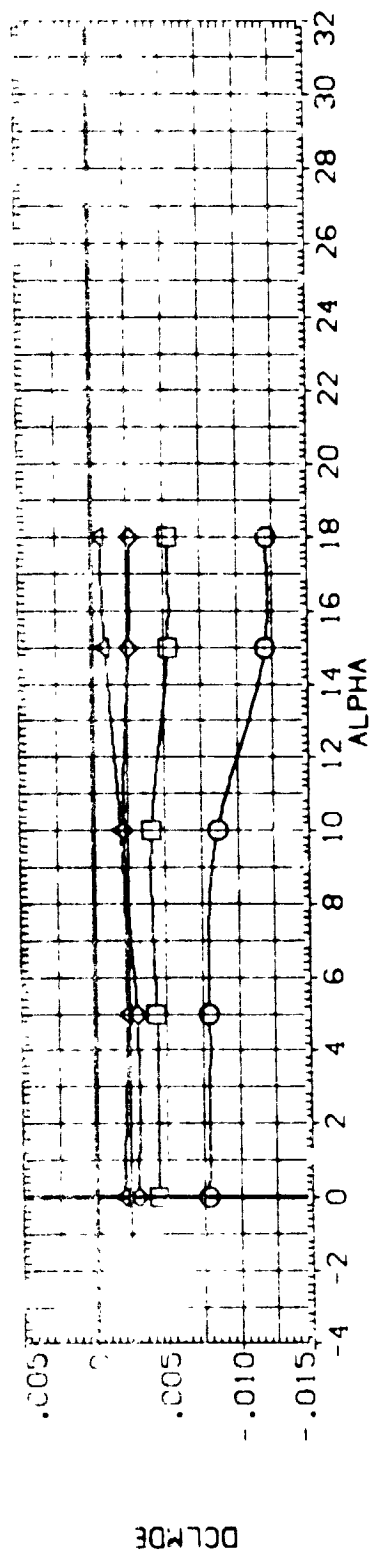


FIGURE 8. INBOARD ELEVON PITCH CONTROL EFFECTIVENESS, (OUTBOARD ELEVONS NEUTRAL)

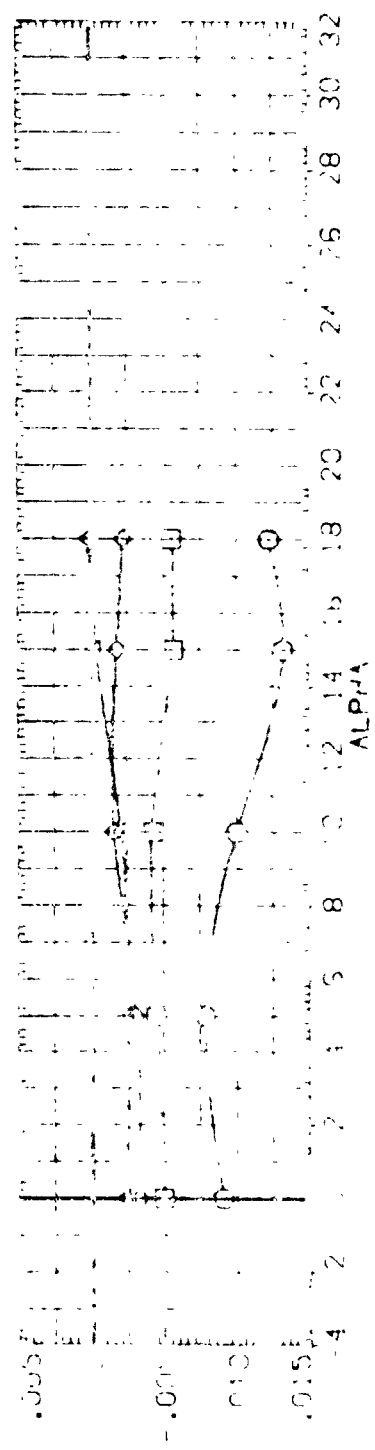
BOHACH = 0.50

0.00 0.25 0.50 0.75 1.00

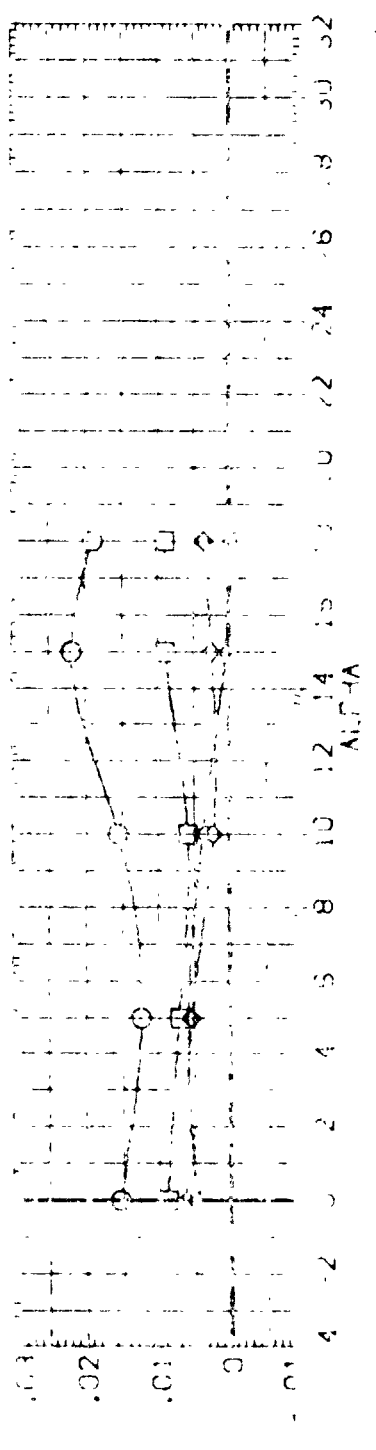
DATA SET SYNOG    CRYSTAL DESCRIPTION  
 (CH1001)    LA 18 2    01 40 RI-CHRY    5    433 SALT FLEVEN  
 (CH1002)    LA 14 2    01 40 RI-CHRY    30    023 SALT FLEVEN  
 (CH1003)    LA 14 2    01 40 RI-CHRY    30    023 SALT FLEVEN  
 (CH1004)    LA 14 2    01 40 RI-CHRY    30    023 SALT FLEVEN

FLV-H    FLV-L    FLV-RI    FLV-RO  
 .000    .000    .000    .000  
 .000    .000    .000    .000  
 .000    .000    .000    .000  
 .000    .000    .000    .000

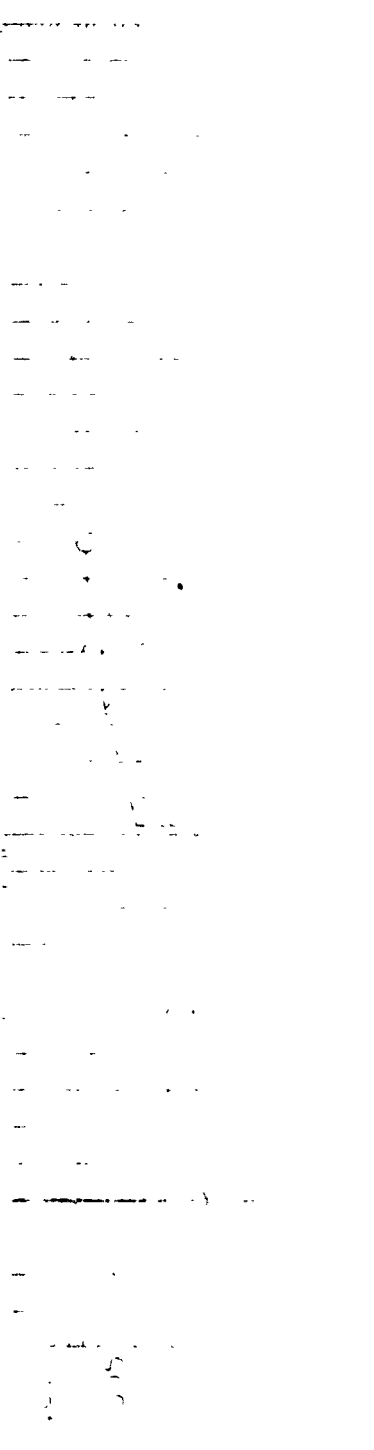
DC/DE



DC/DE



DC/DE



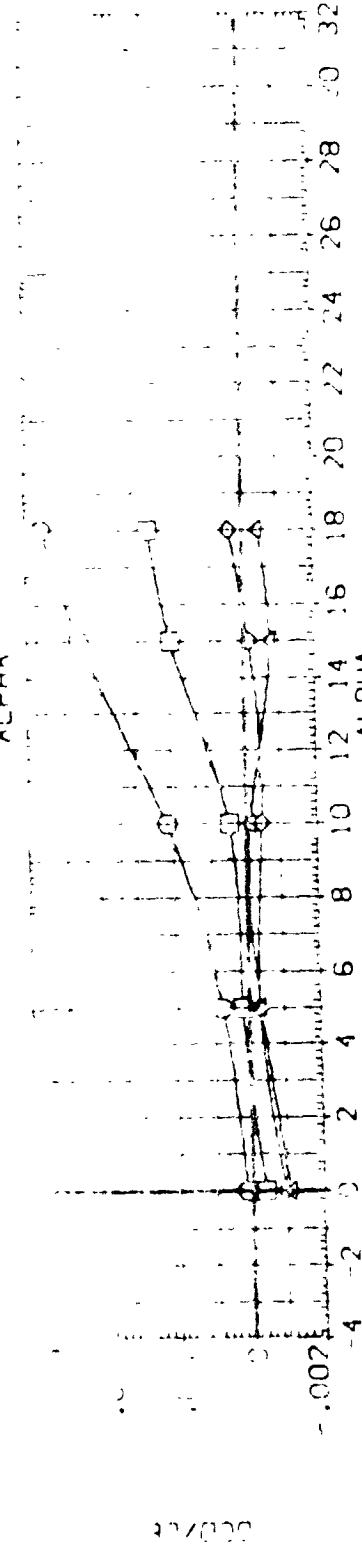
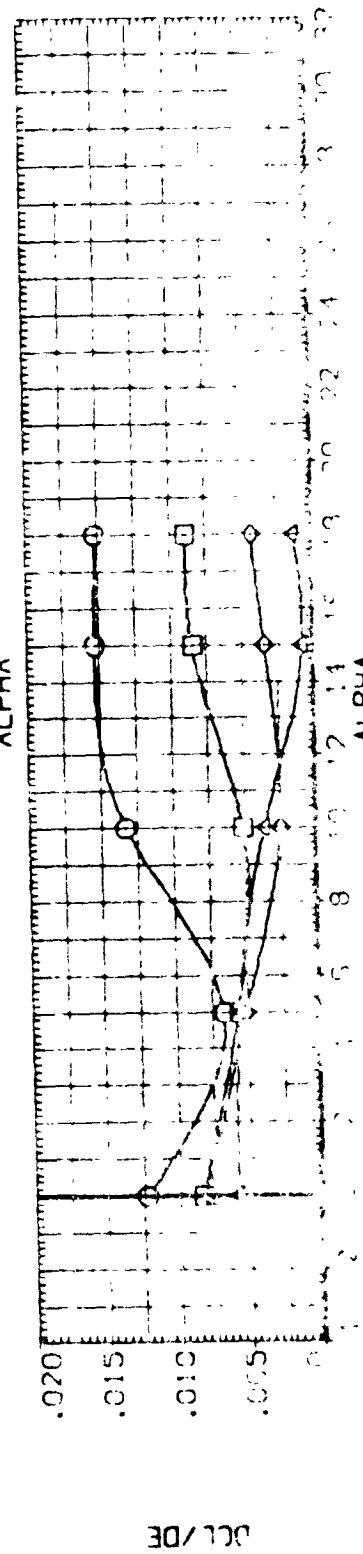
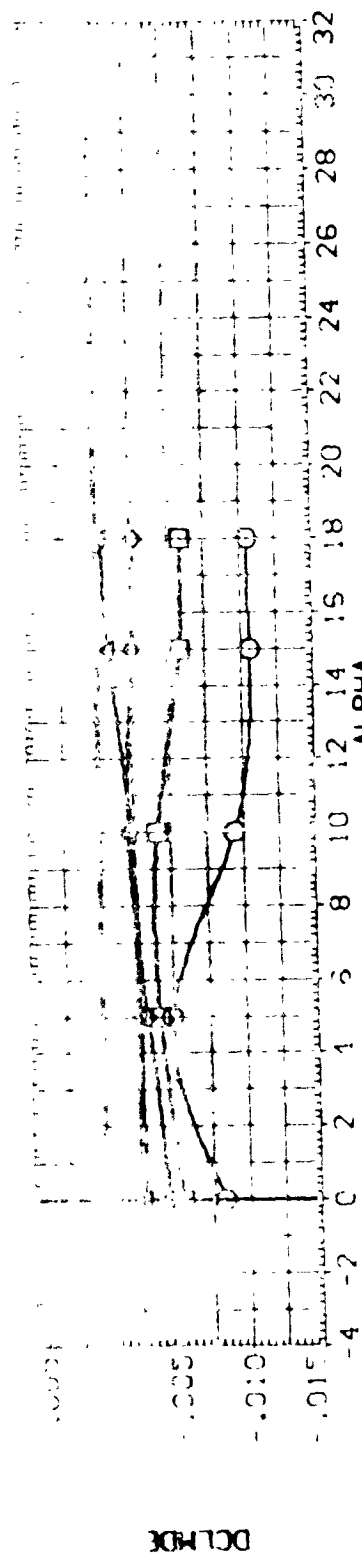


FIGURE 8. INBOARD ELEVON PITCH CONTROL EFFECTIVENESS, OUTBOARD ELEVONS (0.90 MACH)



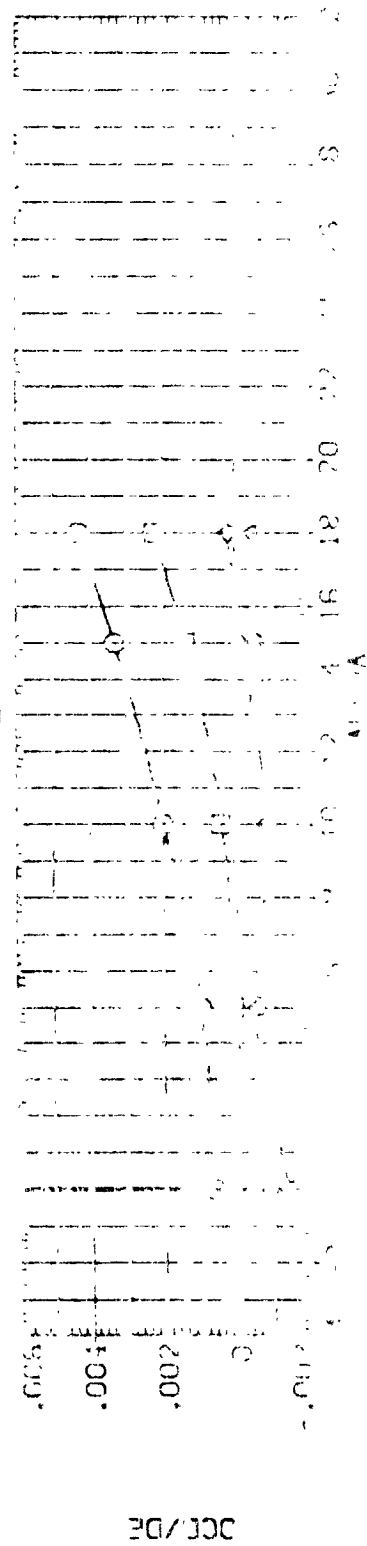
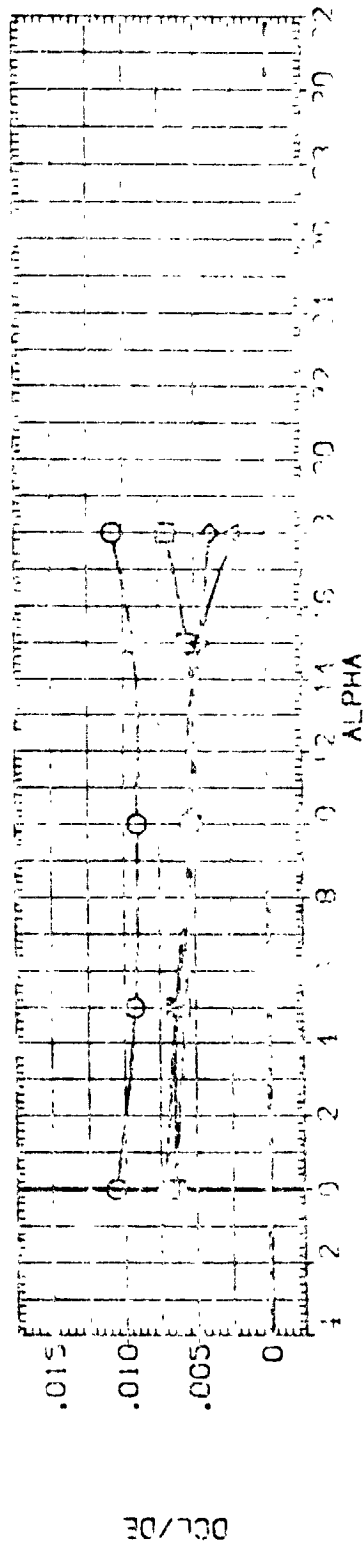
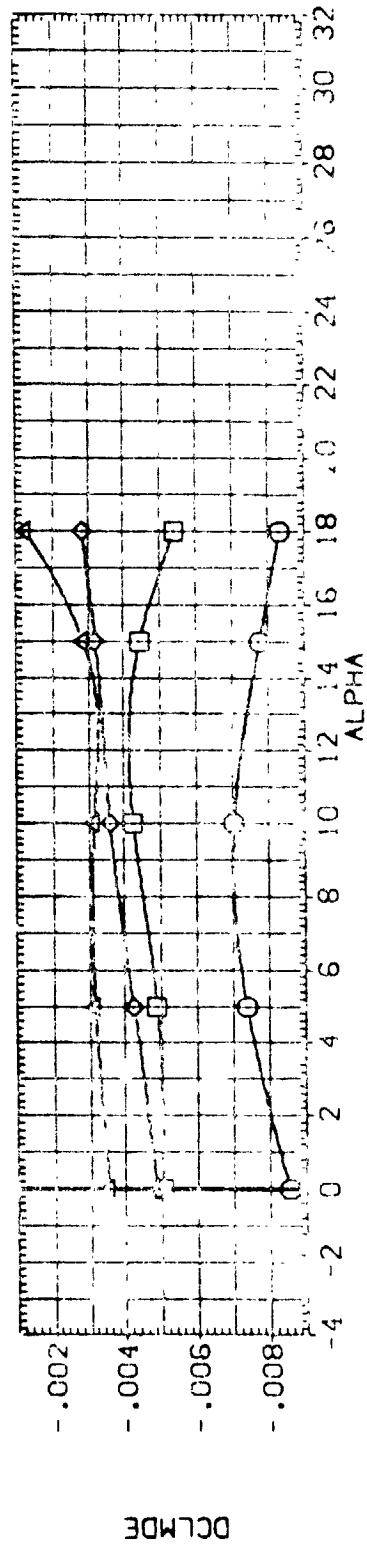


FIGURE 1. 1960-1961  
1962-1963



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(C1)001)	LA-18 8-FT IPT 580 R1-0659/13 018 SPL IT ELEVON	.000	.000	.000	.000
(C1)002)	LA-18 8-FT IPT 580 R1-0659/13 018 SPL IT ELEVON	.000	-10.000	-10.000	.000
(C1)003)	LA-18 8-FT IPT 580 R1-0659/13 018 SPL IT ELEVON	.000	-20.000	-20.000	.000
(C1)004)	LA-18 8-FT IPT 580 R1-0659/13 018 SPL IT ELEVON	.000	-30.000	-30.000	.000



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVATION    ELEVATION    ELEVATION

CH1001	A-48 3-FT PT 500 R1-0858/35	048 SPL 11 ELEVON	000	000
CH1002	A-48 3-FT PT 500 R1-0858/35	048 SPL 11 ELEVON	000	000
CH1003	A-48 3-FT PT 500 R1-0858/35	048 SPL 11 ELEVON	000	000
CH1004	A-48 3-FT PT 500 R1-0858/35	048 SPL 11 ELEVON	000	000

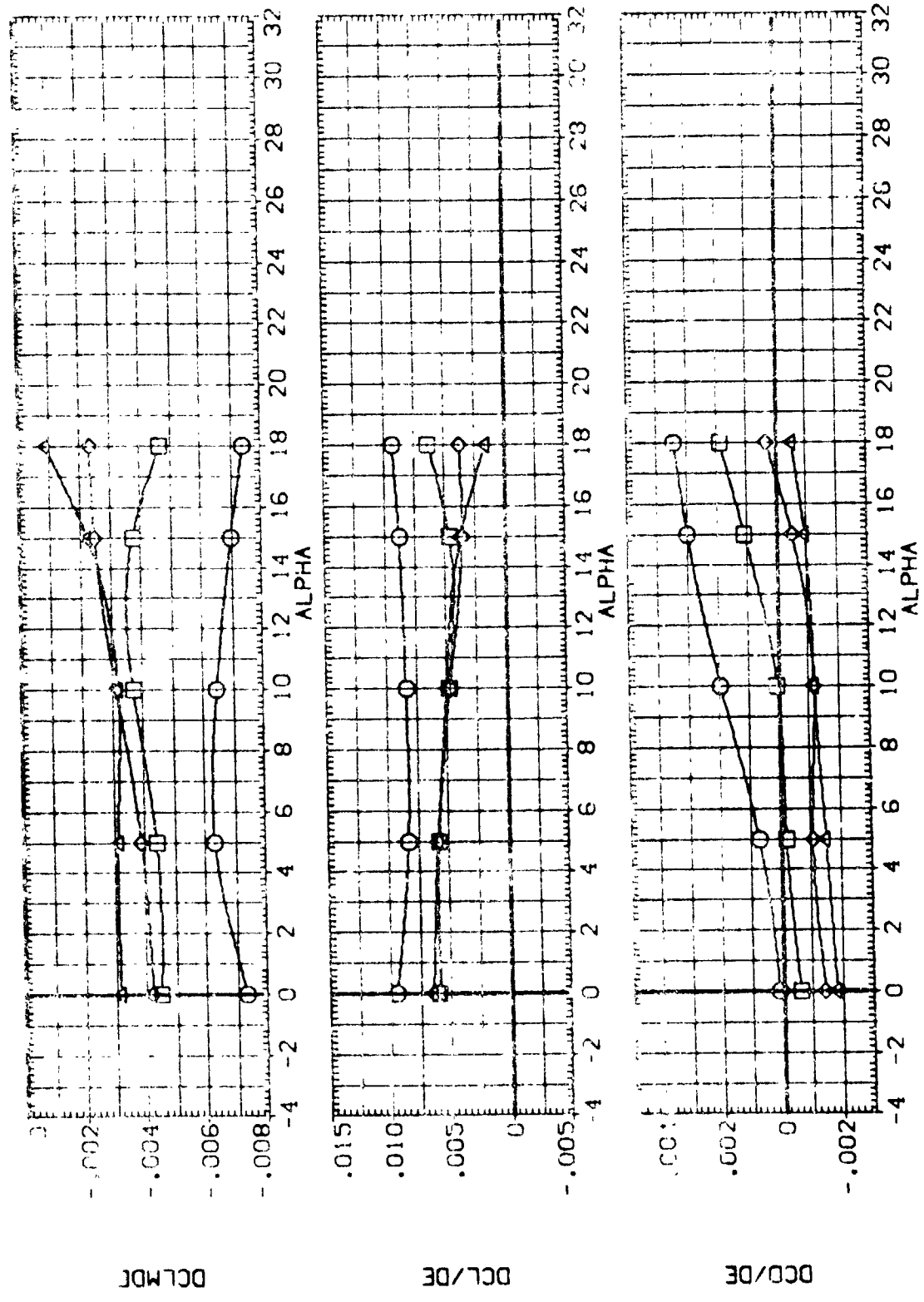


FIGURE 8. INBOARD ELEVON PITCH CONTROL EFFECTIVENESS. (OUTBOARD ELEVONS NEUTRAL)  
 (M)MACH = 1.08      PAGE    36



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EL/FWD      EL/AFT      V-41      V-42

LA-48 9-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

LA-48 8-FT TPT 580 RI-0693/139 058 SAL IT ELEVON      000      000      000      000

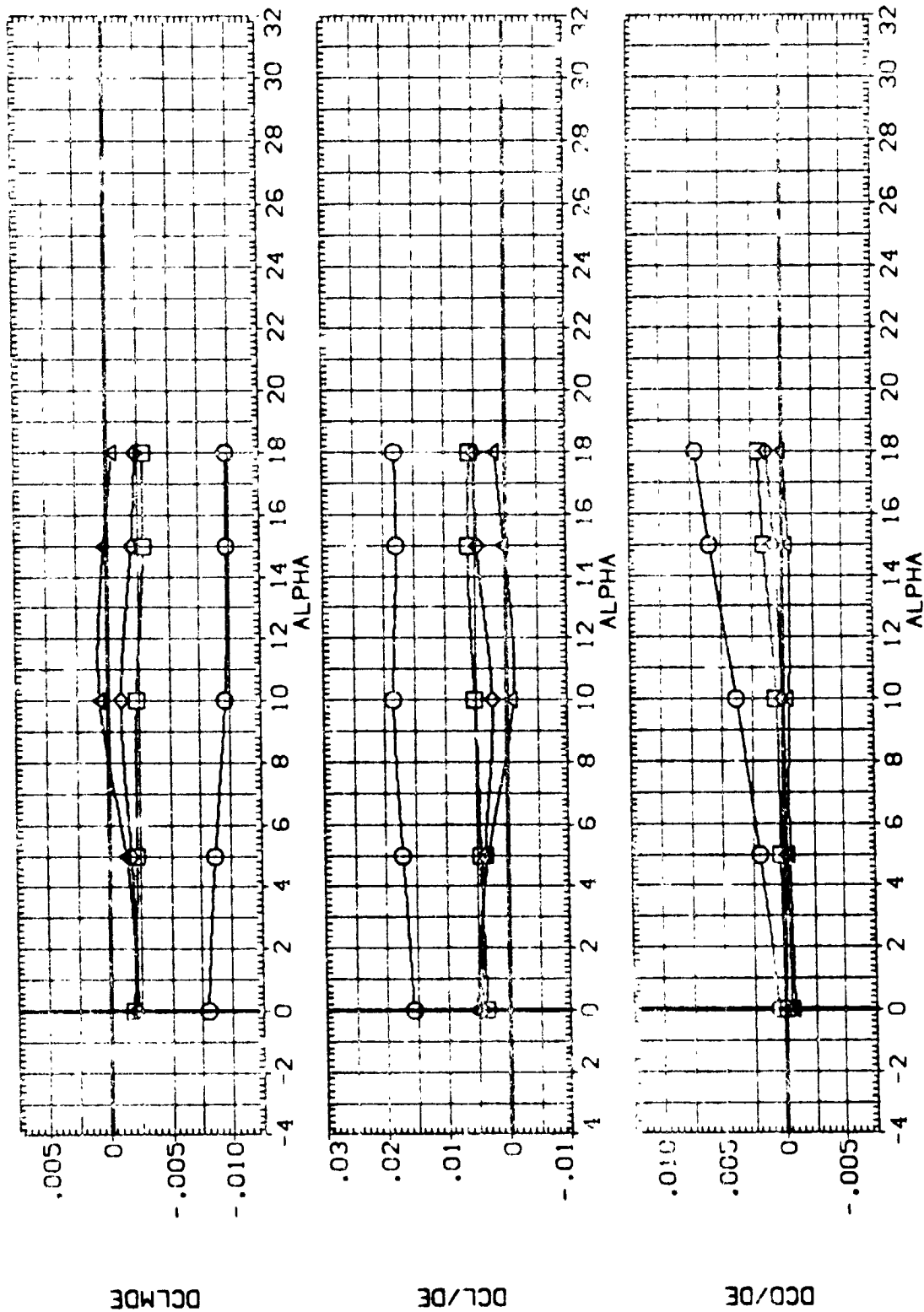


FIGURE 9. OUTBOARD ELEVON PITCH CONTROL EFFECTIVENESS, (INBOARD ELEVONS NEUTRAL)

ALMACH = .60

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(CH1005)	□	LA-48 8-FT TPT 680 RI -0398/139	098 SPL IT ELEVON	-10.000	-10.000	-10.000	-10.000
(CH1002)	◇	LA-48 8-FT TPT 680 RI -0398/139	098 SPL IT ELEVON	-10.000	-10.000	-10.000	-10.000
(CH1006)	△	LA-48 8-FT TPT 680 RI -0398/139	098 SPL IT ELEVON	-20.000	-20.000	-20.000	-20.000
(CH1003)	○	LA-48 8-FT TPT 680 RI -0398/139	098 SPL IT ELEVON	-20.000	-20.000	-20.000	-20.000

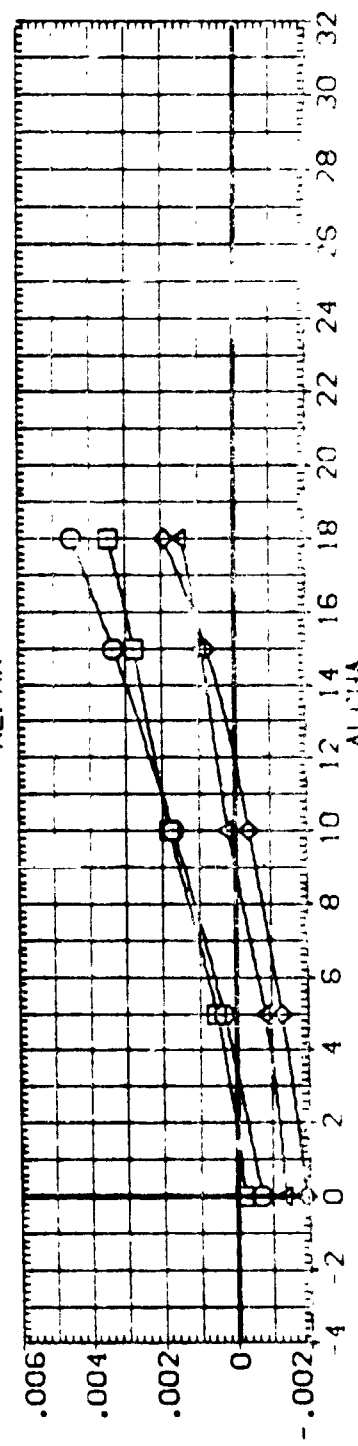
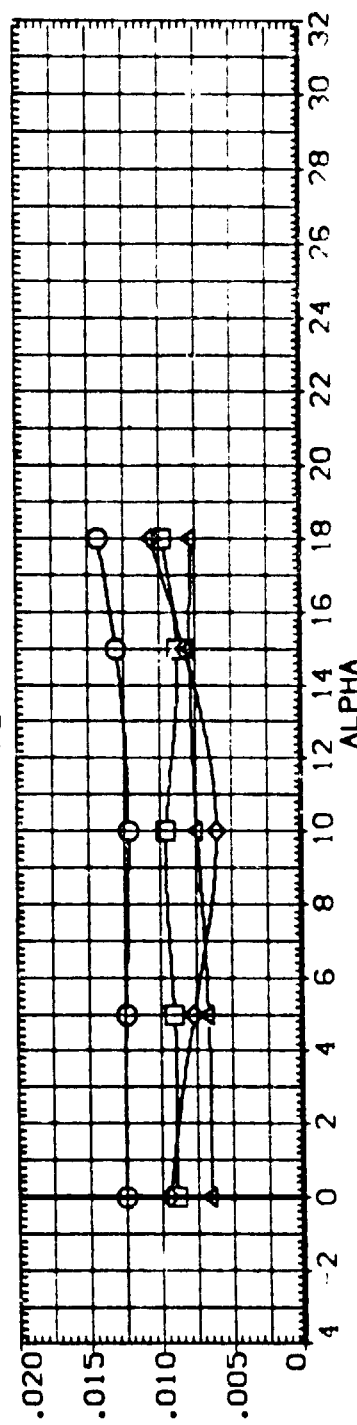
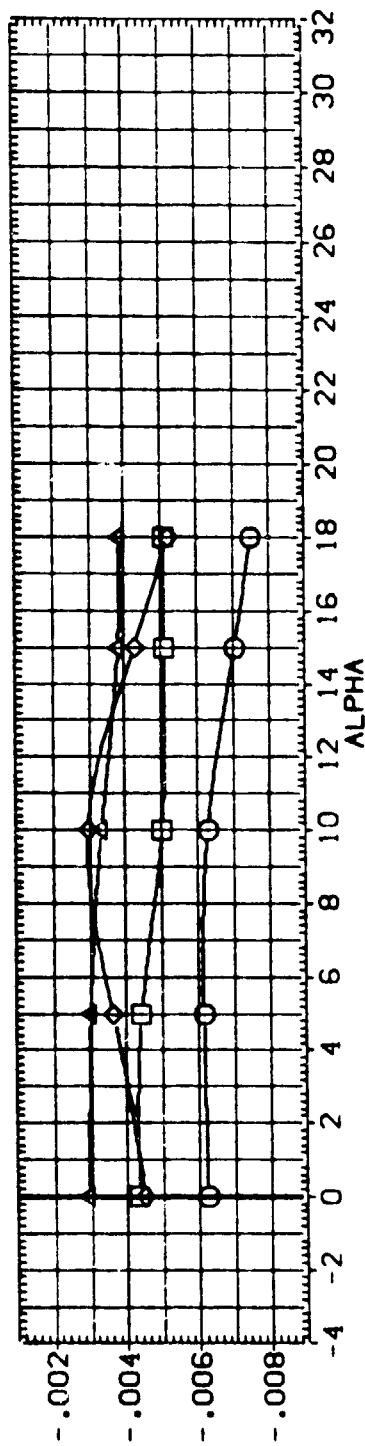


FIGURE 10.10. DCL/DE vs ALPHA for DCL/DE. The y-axis ranges from -0.008 to -0.002. The x-axis ranges from -4 to 32. Four data series are plotted: CH1005 (squares), CH1002 (diamonds), CH1006 (triangles), and CH1003 (circles). All series show a slight upward trend as ALPHA increases.

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELV-L0    ELV-L1    ELV-R1    ELV-R0

{CH1005}      LA-48 8-FT IPT 680 R1 -0898/139 098 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

{CH1002}      LA-48 8-FT IPT 680 R1 -0898/139 098 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

{CH1006}      LA-48 8-FT IPT 680 R1 -0898/139 098 SPL IT ELEVON    -20.000    -20.000    -20.000    -20.000

{CH1003}      LA-48 8-FT IPT 680 R1 -0898/139 098 SPL IT ELEVON    -20.000    -20.000    -20.000    -20.000

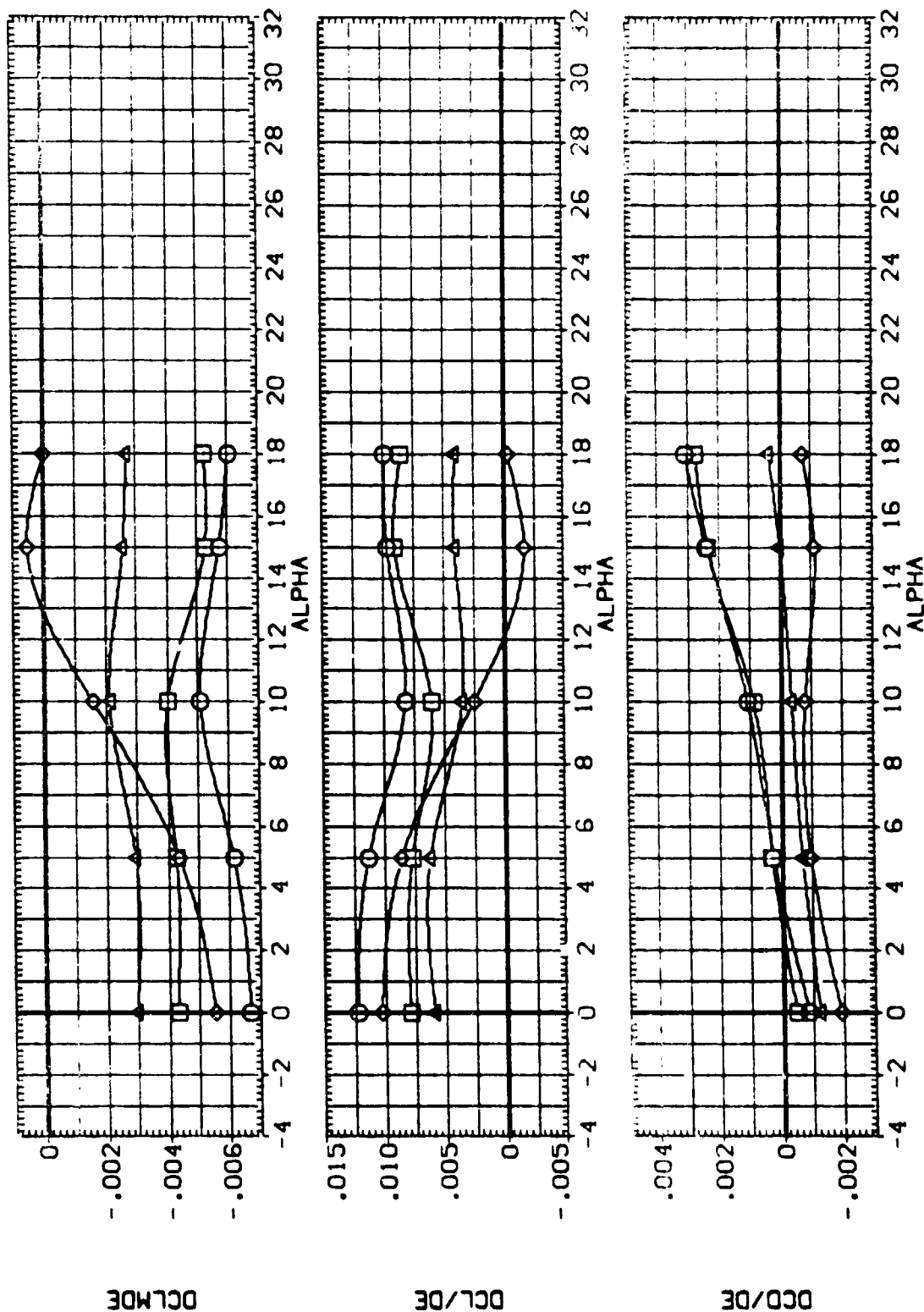
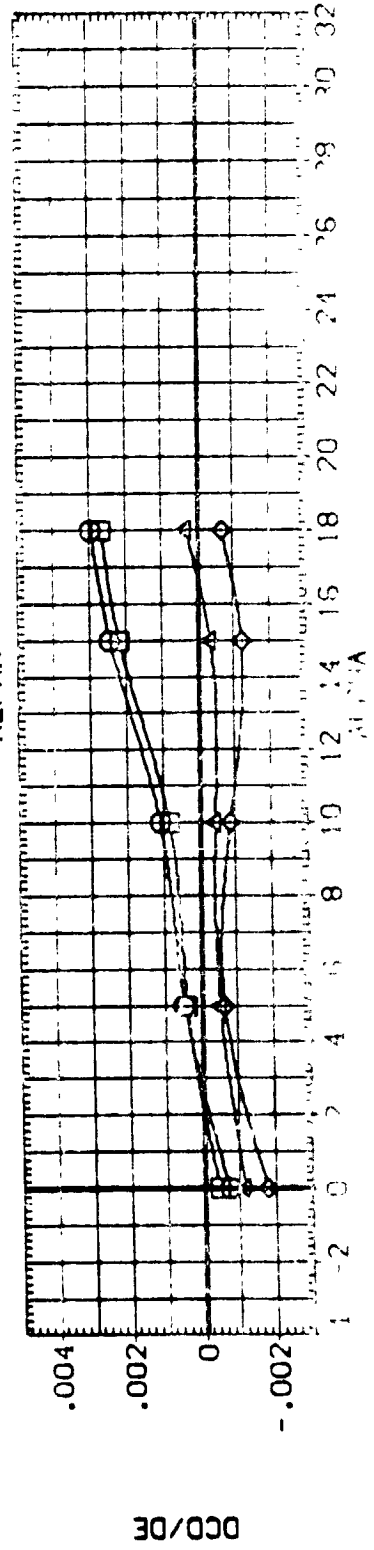
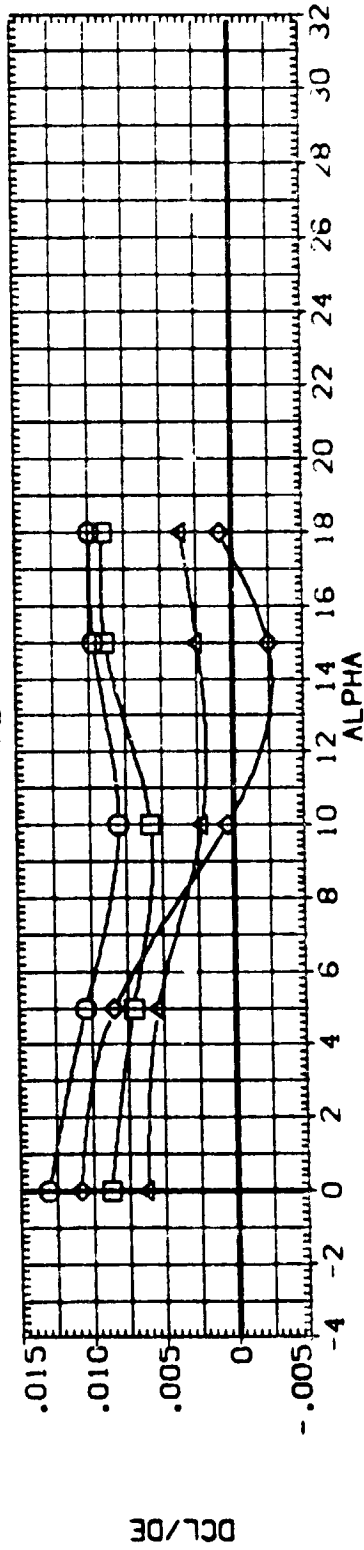
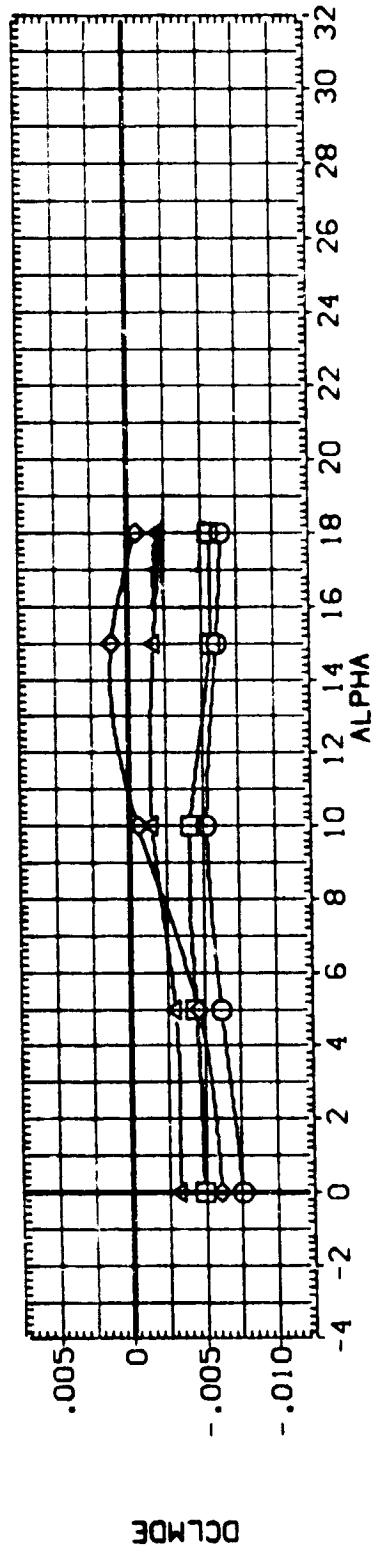


FIGURE 10. COMPARISON OF FULL SPAN AND INBOARD PITCH CONTROL EFFECTIVENESS

(B) MACH = .80



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(CH1005)	LA-48 8-FT TPT 680 R1-0898/139	078 SPL IT ELEVON	-10.000	-10.000	-10.000	-10.000
(CH1002)	LA-48 8-FT TPT 680 R1-0898/139	078 SPL IT ELEVON	-10.000	-10.000	-10.000	-10.000
(CH1006)	LA-48 8-FT TPT 680 R1-0898/139	078 SPL IT ELEVON	-20.000	-20.000	-20.000	-20.000
(CH1003)	LA-48 8-FT TPT 680 R1-0898/139	078 SPL IT ELEVON	-20.000	-20.000	-20.000	-20.000





DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELEV-LO      ELEV-LI      ELEV-RI      ELEV-RO

{CH1005}      LA-48 8-FT IPT 680 R1 -0898/39 098 SPL IT ELEVON      -10.000      -10.000      -10.000      -10.000

{CH1002}      LA-48 8-FT IPT 680 R1 -0898/39 098 SPL IT ELEVON      -10.000      -10.000      -10.000      -10.000

{CH1006}      LA-48 8-FT IPT 680 R1 -0898/39 098 SPL IT ELEVON      -20.000      -20.000      -20.000      -20.000

{CH1003}      LA-48 8-FT IPT 680 R1 -0898/39 098 SPL IT ELEVON      -20.000      -20.000      -20.000      -20.000

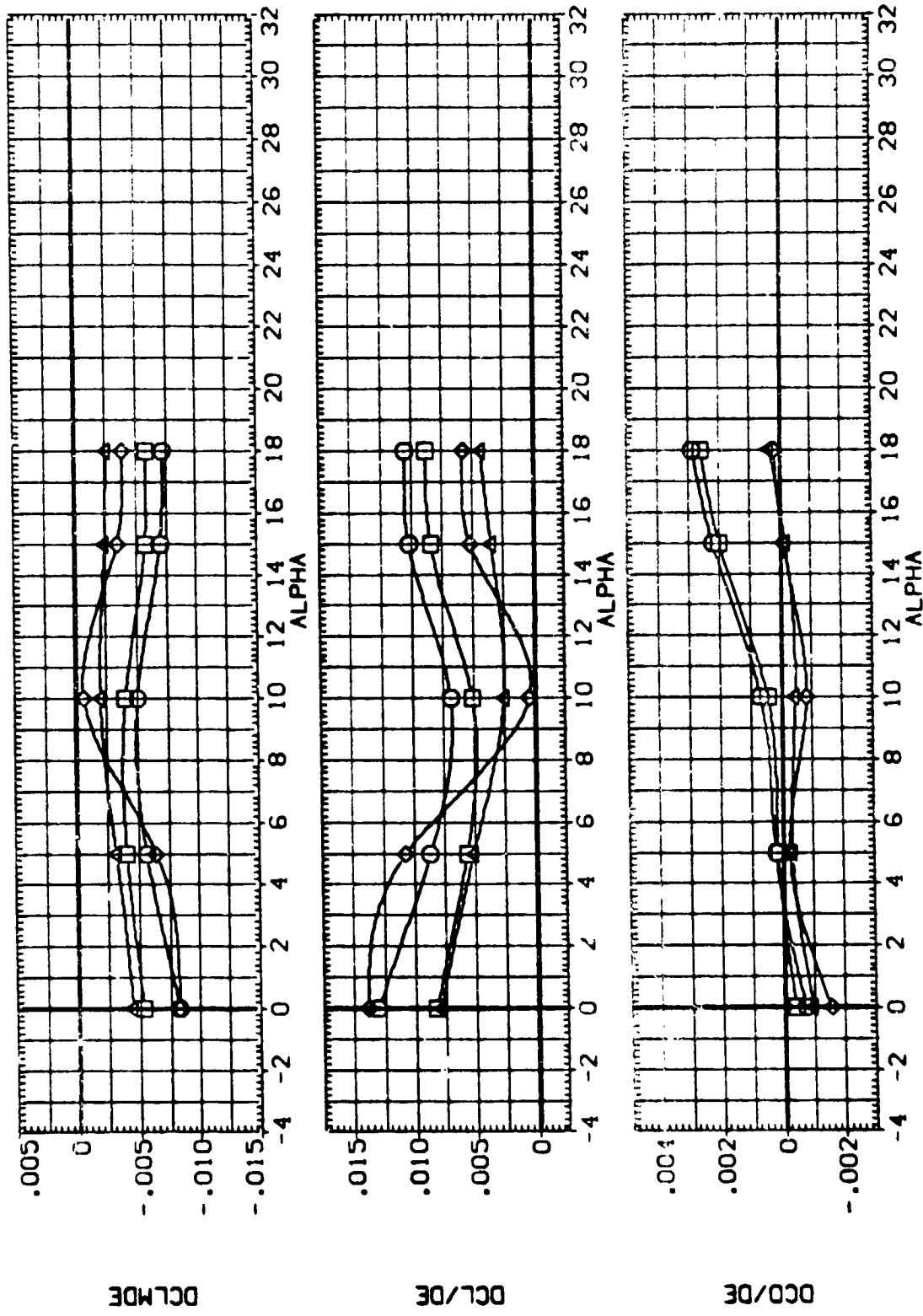


FIGURE 10. COMPARISON OF FULL SPAN AND INBOARD PITCH CONTROL EFFECTIVENESS  
(O)MACH = .90      PAGE 72



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELEV-L      ELEV-LI      ELEV-RI      ELEV-RO

(041005)      LA-48 6-ET      1PT 680 RI -0852/139      0 0 0      0 0 0      0 0 0      0 0 0

(041002)      LA-48 8-ET      1PT 680 RI -0852/139      0 0 0      0 0 0      0 0 0      0 0 0

(041006)      LA-48 3-ET      1PT 680 RI -0852/139      0 0 0      0 0 0      0 0 0      0 0 0

(041003)      LA-48 1-ET      1PT 680 RI -0852/139      0 0 0      0 0 0      0 0 0      0 0 0

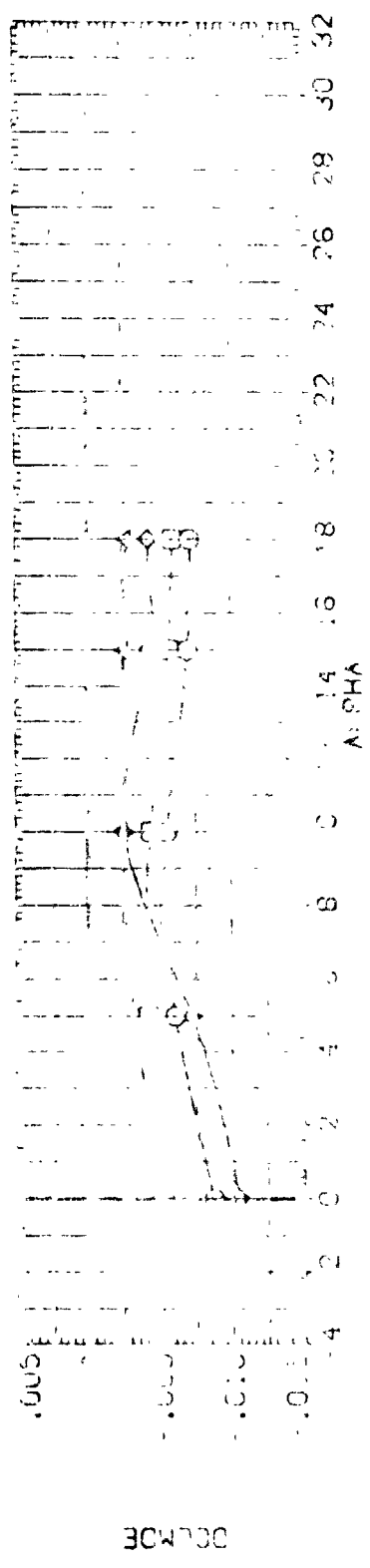


FIGURE 10. COMPARISON OF FULL SPAN AND INBOARD PITCH CONTROL EFFECTIVENESS

(F)MACH = .95	PAGE	74
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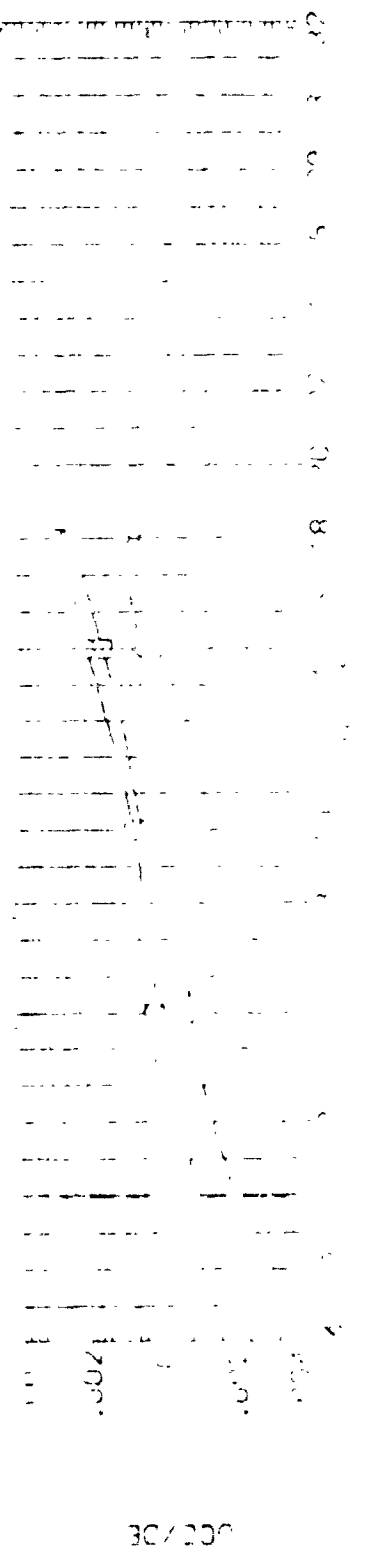
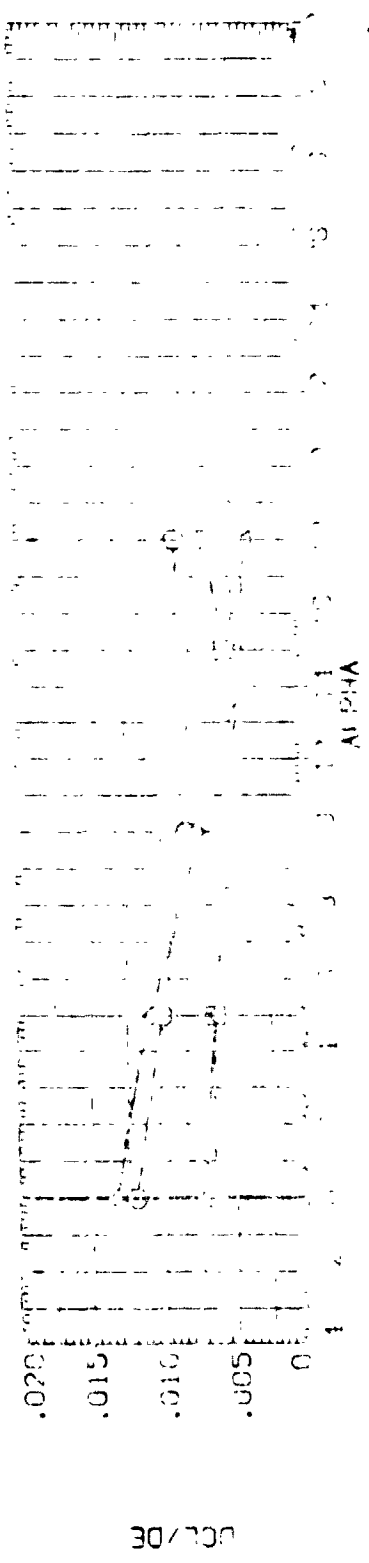
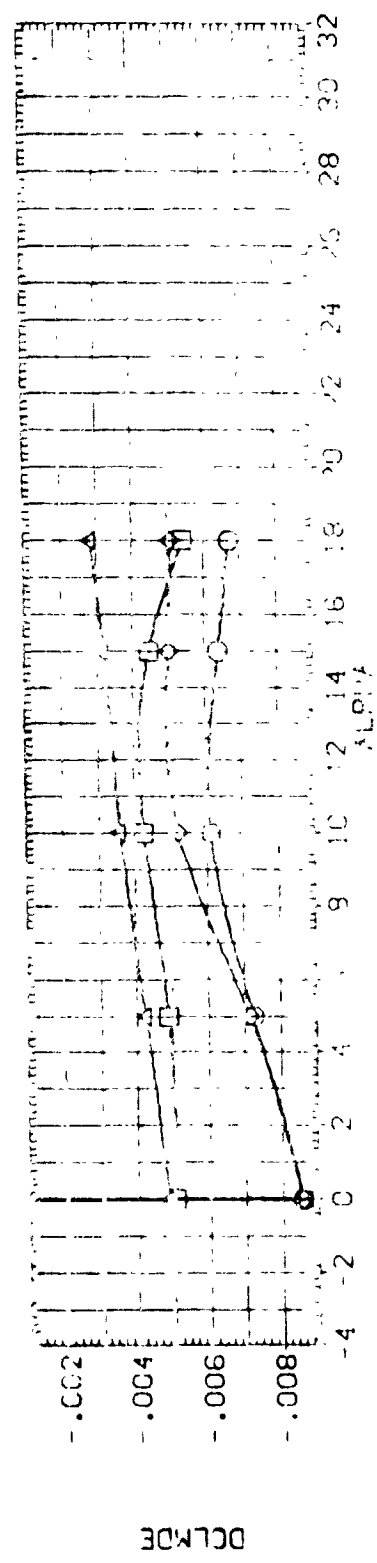
DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0

(CH1005)    LA-48 8-FT TPT C20 RI-0899/33 008 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

(CH1002)    LA-48 8-FT TPT C20 RI-0899/39 008 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

(CH1006)    LA-48 8-FT TPT C20 RI-0899/39 008 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000

(CH1003)    LA-48 8-FT TPT C20 RI-0899/39 008 SPL IT ELEVON    -10.000    -10.000    -10.000    -10.000



DCL/DE

DCL/DE

DCL/DE

55775  
55776  
55777  
55778  
55779  
55780

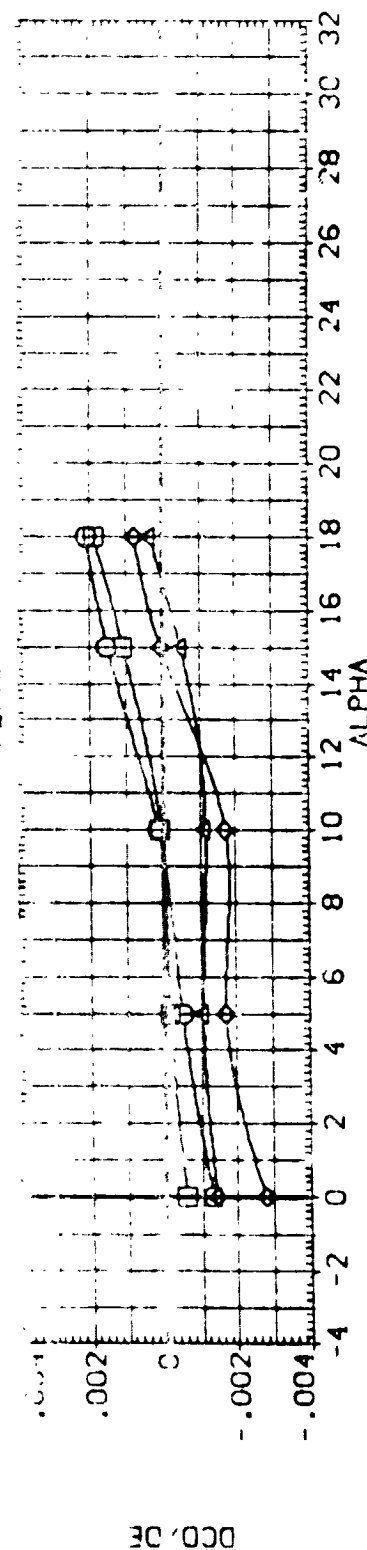
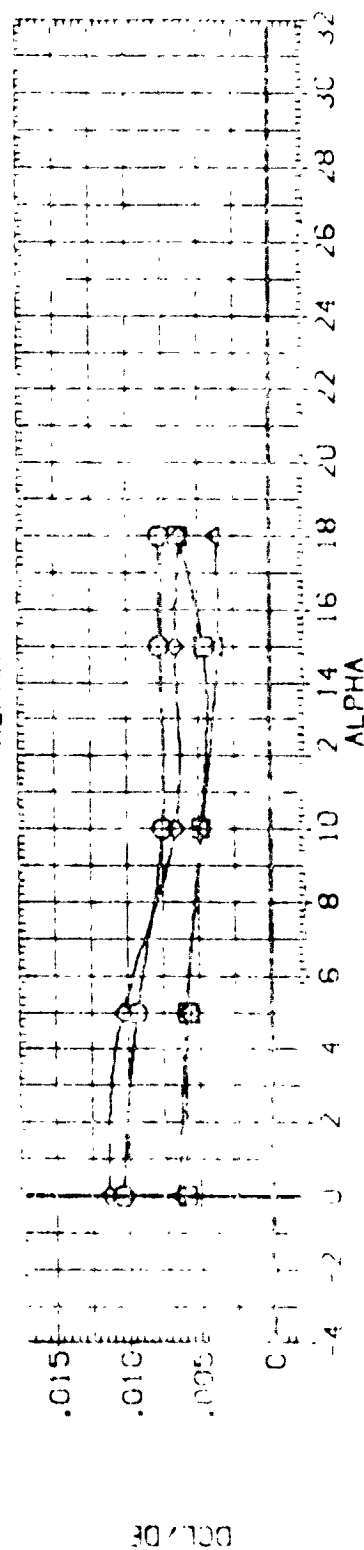
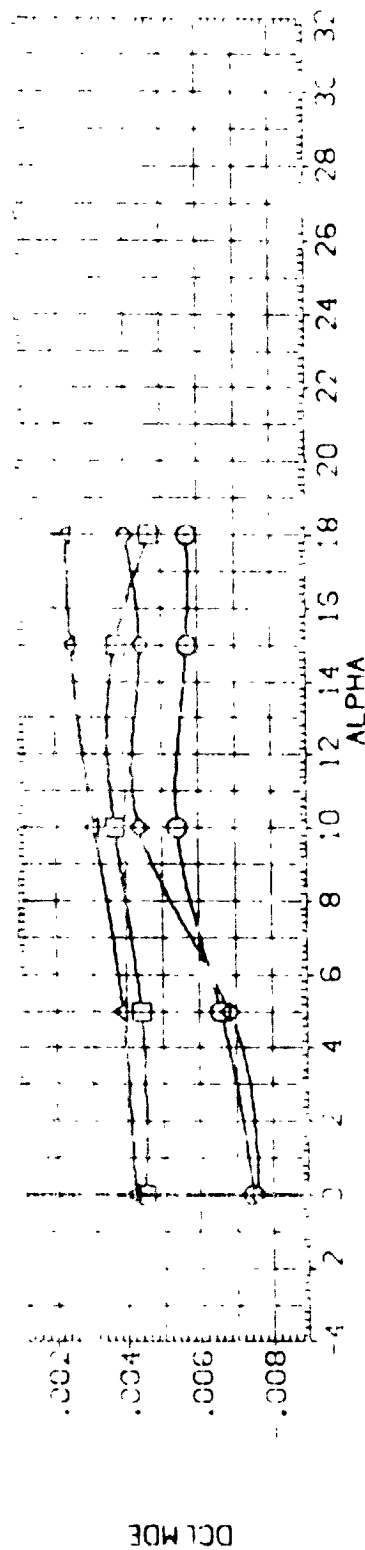


FIGURE 10. COMPARISON OF FULL SPAN AND INBOARD PITCH CONTROL EFFECTIVENESS

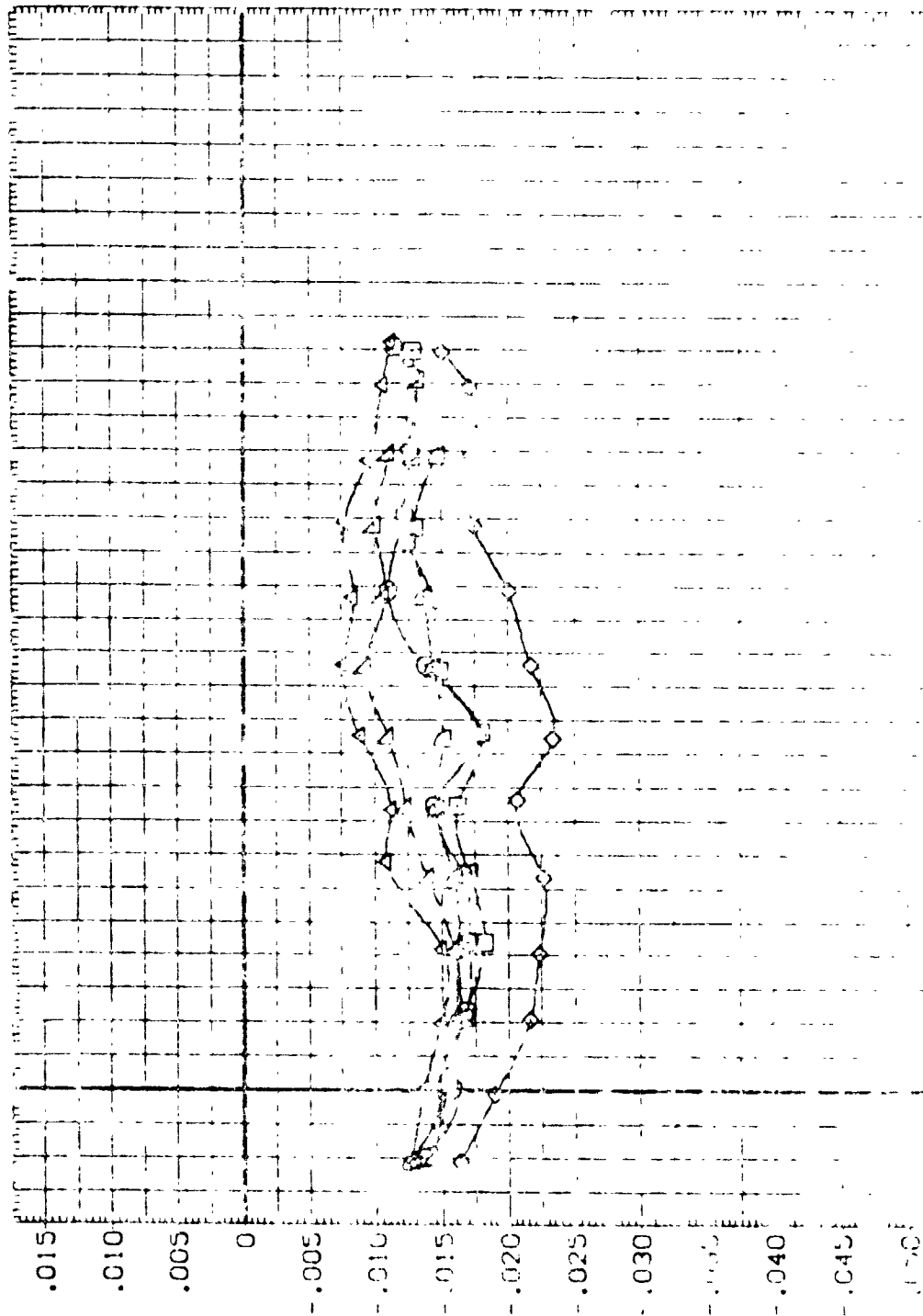
$$(H)MACH = 1.08$$

304

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# SIDE FORCE COEFFICIENT, CY

DATA SET	SYMBOL	COORDINATE	DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
LA-18	8-ET	PT	580 R1-0833/39	0.000	0.000	0.000	-5.000
LA-18	8-ET	PT	580 R1-0833/39	5.000	20.000	20.000	-5.000
LA-18	8-ET	PT	580 R1-0833/39	10.000	20.000	20.000	-10.000
LA-18	8-ET	PT	580 R1-0833/39	15.000	20.000	20.000	-15.000
LA-18	8-ET	PT	580 R1-0833/39	20.000	20.000	20.000	-20.000
LA-18	8-ET	PT	580 R1-0833/39	25.000	20.000	20.000	-25.000
LA-18	8-ET	PT	580 R1-0833/39	30.000	20.000	20.000	-30.000
LA-18	8-ET	PT	580 R1-0833/39	35.000	20.000	20.000	-35.000
LA-18	8-ET	PT	580 R1-0833/39	40.000	20.000	20.000	-40.000
LA-18	8-ET	PT	580 R1-0833/39	45.000	20.000	20.000	-45.000
LA-18	8-ET	PT	580 R1-0833/39	50.000	20.000	20.000	-50.000
LA-18	8-ET	PT	580 R1-0833/39	55.000	20.000	20.000	-55.000
LA-18	8-ET	PT	580 R1-0833/39	60.000	20.000	20.000	-60.000
LA-18	8-ET	PT	580 R1-0833/39	65.000	20.000	20.000	-65.000
LA-18	8-ET	PT	580 R1-0833/39	70.000	20.000	20.000	-70.000
LA-18	8-ET	PT	580 R1-0833/39	75.000	20.000	20.000	-75.000
LA-18	8-ET	PT	580 R1-0833/39	80.000	20.000	20.000	-80.000
LA-18	8-ET	PT	580 R1-0833/39	85.000	20.000	20.000	-85.000
LA-18	8-ET	PT	580 R1-0833/39	90.000	20.000	20.000	-90.000
LA-18	8-ET	PT	580 R1-0833/39	95.000	20.000	20.000	-95.000
LA-18	8-ET	PT	580 R1-0833/39	100.000	20.000	20.000	-100.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DRB	SPLIT	ELEVON	ELEV-H	ELEV-L	TOV-H	TOV-L	ELEV-H	ELEV-L
(AH1007)	LA-18 8-FT TPT 800 RI-0898/139	DRB	SPLIT	ELEVON	5.000	5.000	0.000	0.000	5.000	5.000
(AH1008)	LA-18 8-FT TPT 800 RI-0898/139	DRB	SPLIT	ELEVON	5.000	5.000	0.000	0.000	5.000	5.000
(AH1009)	LA-18 8-FT TPT 800 RI-0898/139	DRB	SPLIT	ELEVON	5.000	5.000	0.000	0.000	5.000	5.000
(AH1010)	LA-18 8-FT TPT 800 RI-0898/139	DRB	SPLIT	ELEVON	5.000	5.000	0.000	0.000	5.000	5.000
(AH1011)	LA-18 8-FT TPT 800 RI-0898/139	DRB	SPLIT	ELEVON	5.000	5.000	0.000	0.000	5.000	5.000
(AH1012)	LA-18 8-FT TPT 800 RI-0898/139	DRB	SPLIT	ELEVON	5.000	5.000	0.000	0.000	5.000	5.000

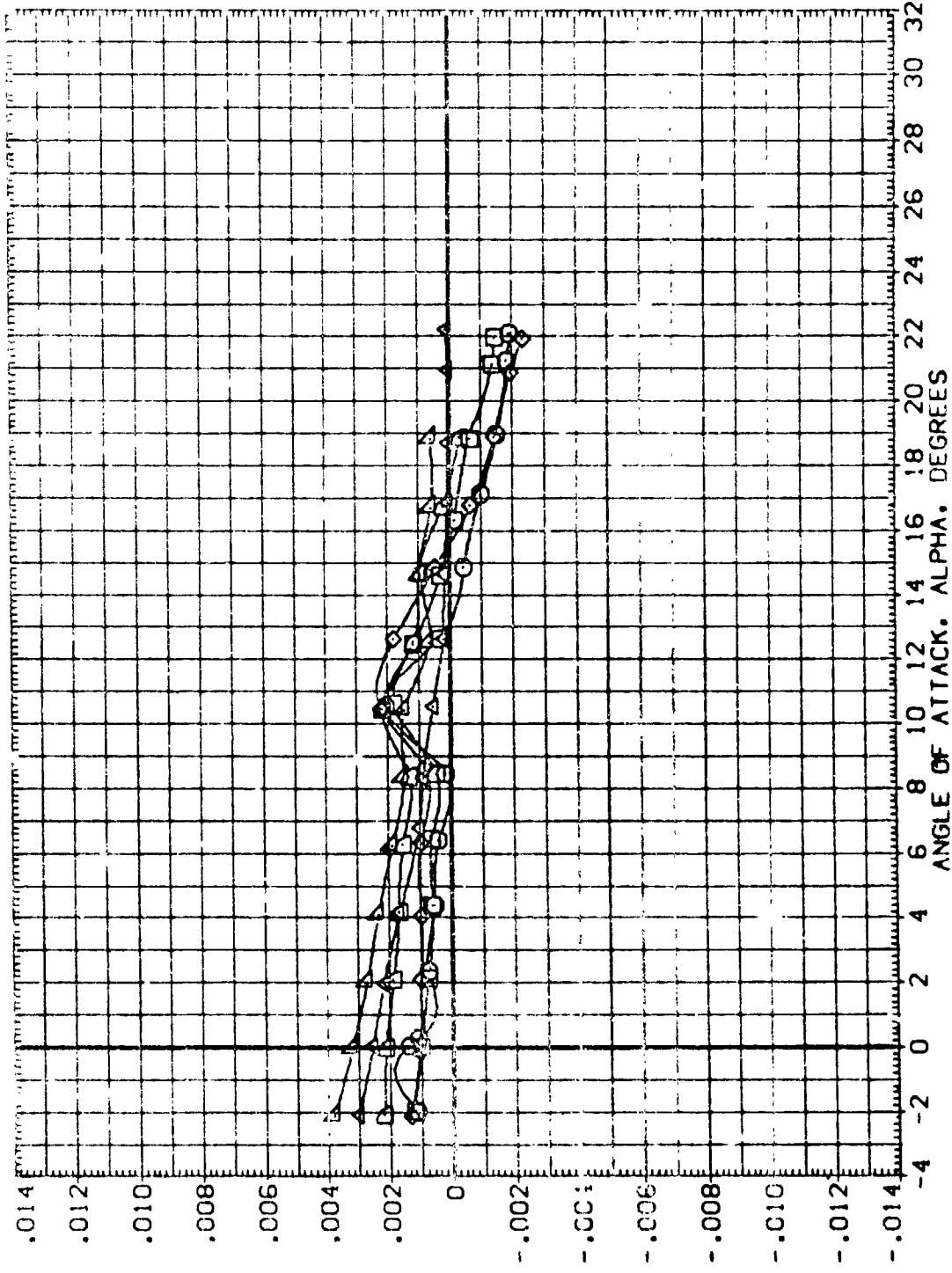
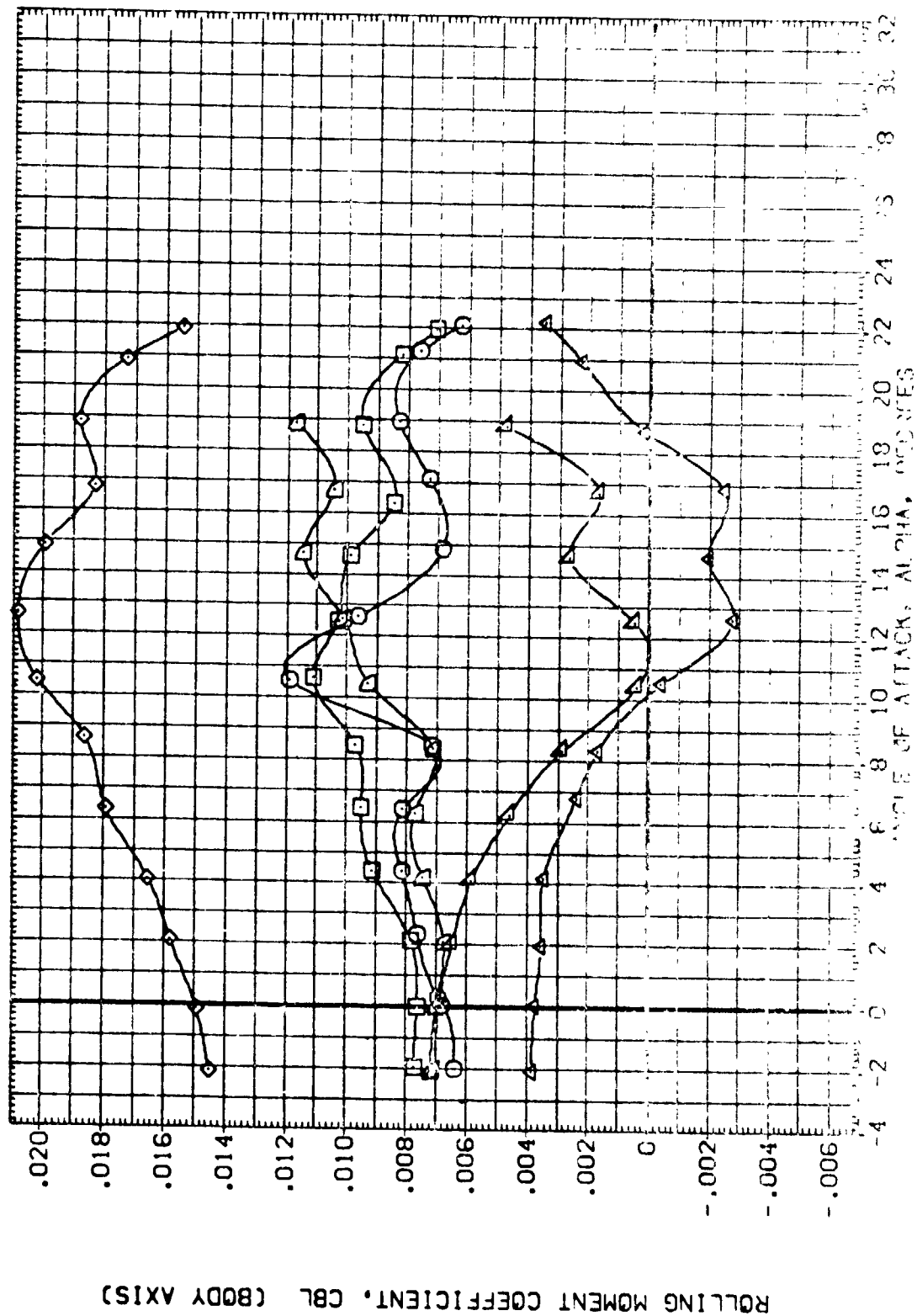


FIGURE 11. OUTBOARD AILERON ROLL CHARACTERISTICS

(A) MACH = .60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-LO	ELV-LI	ELV-RI	ELV-RO
(AH1007)	LA-48 8-FT TPT 680 RI-0898/139	5.000	.000	.000	-5.000
(AH1008)	LA-48 8-FT TPT 680 RI-0898/139	5.000	.000	.000	-5.000
(AH1009)	LA-48 8-FT TPT 680 RI-0898/139	10.000	-20.000	-20.000	-10.000
(AH1010)	LA-48 8-FT TPT 680 RI-0898/139	15.000	-20.000	-20.000	-25.000
(AH1011)	LA-48 8-FT TPT 680 RI-0898/139	-10.000	-20.000	-20.000	-30.000
(AH1012)	LA-48 8-FT TPT 680 RI-0898/139	-10.000	-10.000	-10.000	-20.000



LA-48  
8-FT TPT



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L6	ELV-L1	ELV-R1	ELV-R6
(A11007)	LA-48 8-FT TPT 320 R1-0698/39 0-48 SPL11 ELEVON	5.000	.000	.000	5.000
(A11008)	LA-48 8-FT TPT 680 R1-0698/39 0-48 SPL11 ELEVON	5.000	-20.000	-20.000	5.000
(A11009)	LA-48 8-FT TPT 1360 R1-0698/39 0-48 SPL11 ELEVON	10.000	-20.000	-20.000	10.000
(A11010)	LA-48 8-FT TPT 2040 R1-0698/39 0-48 SPL11 ELEVON	-15.000	-20.000	-20.000	-15.000
(A11011)	LA-48 8-FT TPT 2720 R1-0698/39 0-48 SPL11 ELEVON	-10.000	-20.000	-20.000	-10.000
(A11012)	LA-48 8-FT TPT 3400 R1-0698/39 0-48 SPL11 ELEVON	.000	-10.000	-10.000	.000

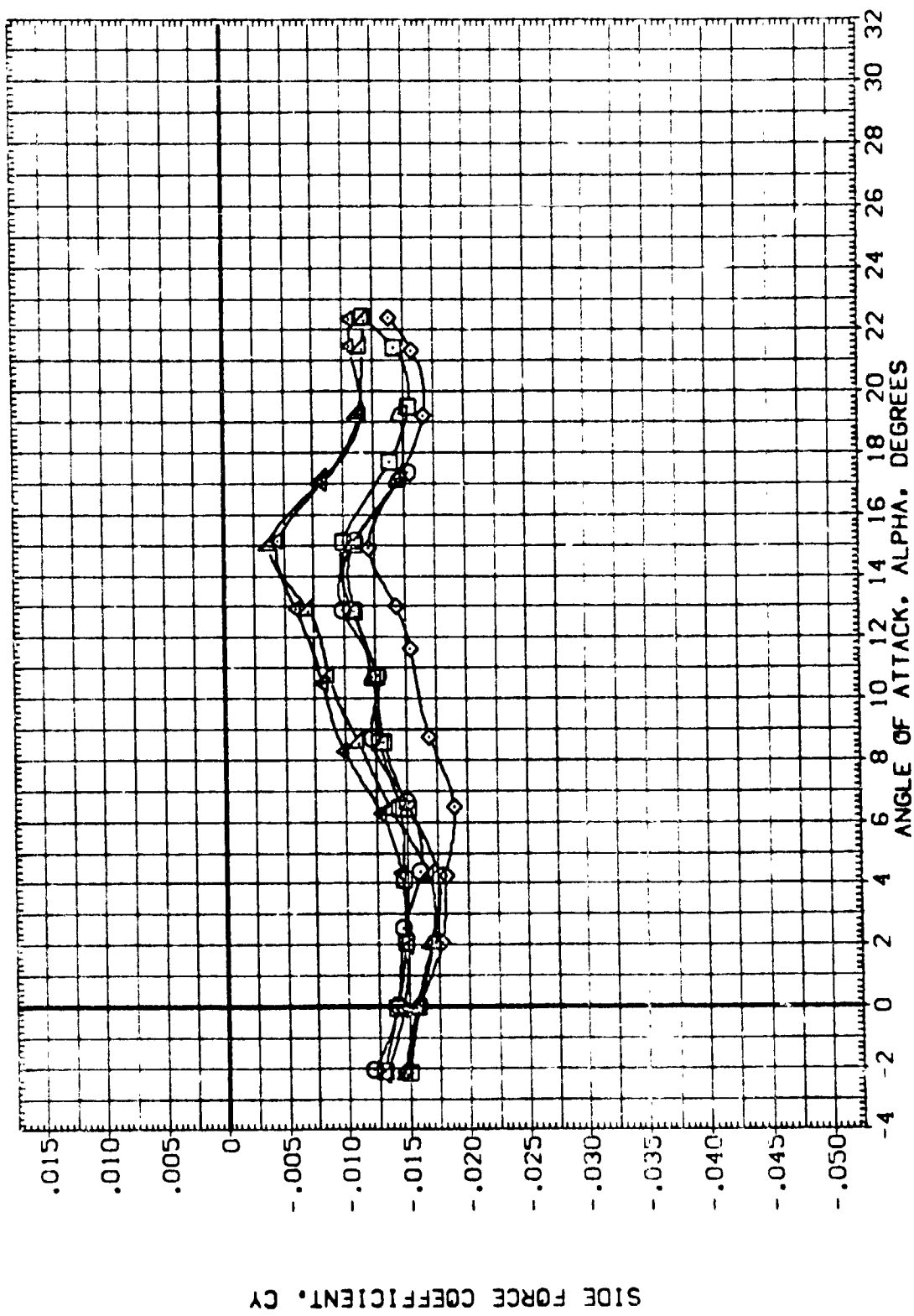
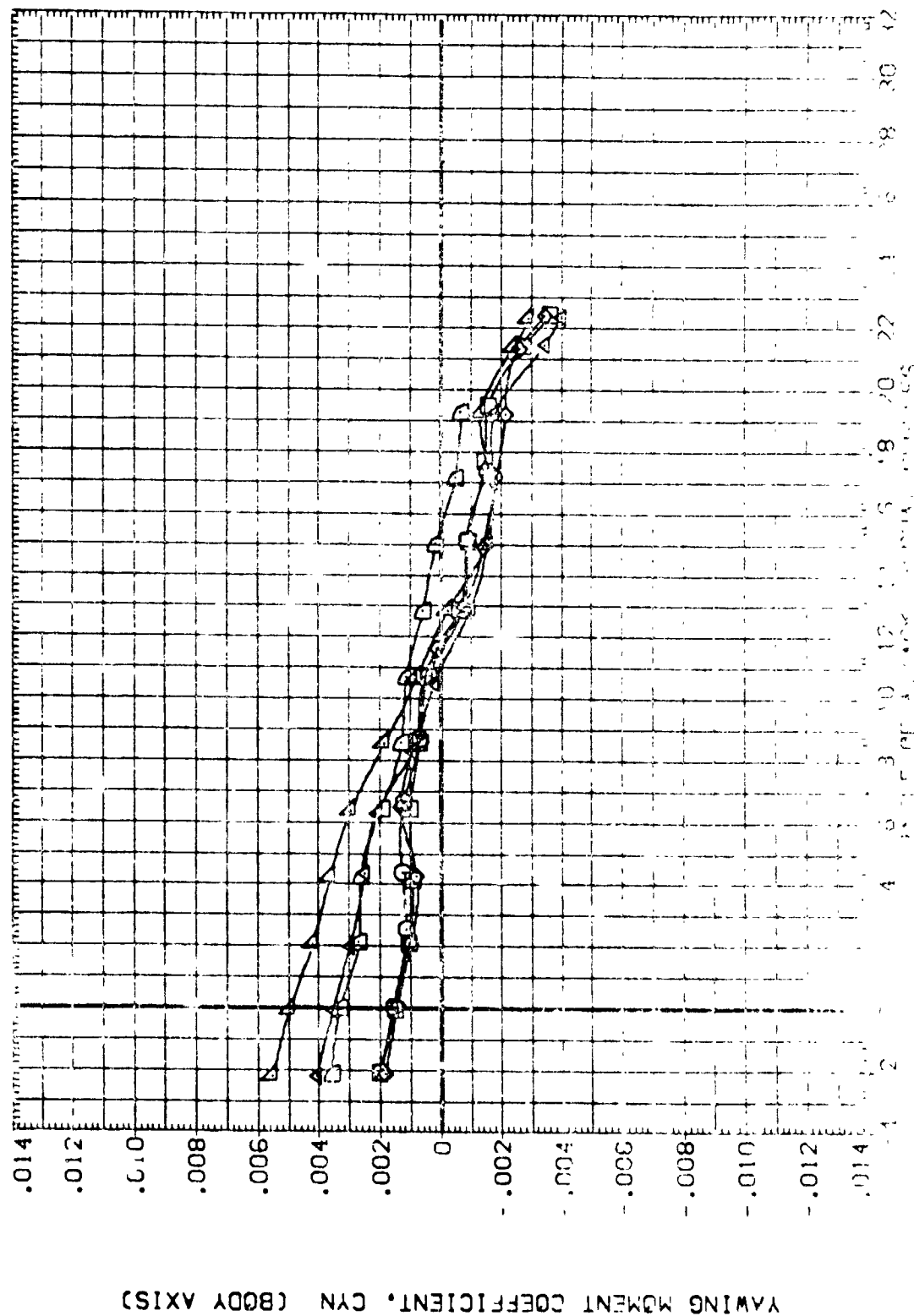


FIGURE 11. OUTBOARD AILERON ROLL CHARACTERISTICS

(8)MACH = .80

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(AH1007)	LA-48 8-FT IPT 500 R1-0898/139 048 SPL IT ELEVON	5.000	.000	.000	-5.000
(AH1008)	LA-48 8-FT IPT 680 R1-0898/139 048 SPL IT ELEVON	5.000	-20.000	-20.000	-5.000
(AH1009)	LA-48 8-FT IPT 860 R1-0898/139 048 SPL IT ELEVON	10.000	-20.000	-20.000	-10.000
(AH1010)	LA-48 8-FT IPT 1040 R1-0898/139 048 SPL IT ELEVON	15.000	-20.000	-20.000	-25.000
(AH1011)	LA-48 8-FT IPT 1220 R1-0898/139 048 SPL IT ELEVON	20.000	-20.000	-20.000	-30.000
(AH1012)	LA-48 8-FT IPT 1400 R1-0898/139 048 SPL IT ELEVON	25.000	-10.000	-10.000	-20.000



DATA SET SYMBOLS: 1-48 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-49 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-50 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-51 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-52 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-53 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-54 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-55 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-56 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-57 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-58 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-59 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-60 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-61 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-62 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-63 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-64 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-65 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-66 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-67 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-68 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-69 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-70 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-71 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-72 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-73 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-74 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-75 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-76 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-77 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-78 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-79 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-80 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-81 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-82 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-83 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-84 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-85 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-86 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-87 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-88 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-89 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-90 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-91 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-92 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-93 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-94 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-95 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-96 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-97 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-98 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-99 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON  
 1-100 3-ET 15 580 R1-0858/ 39 088 SPLIT ELEVON

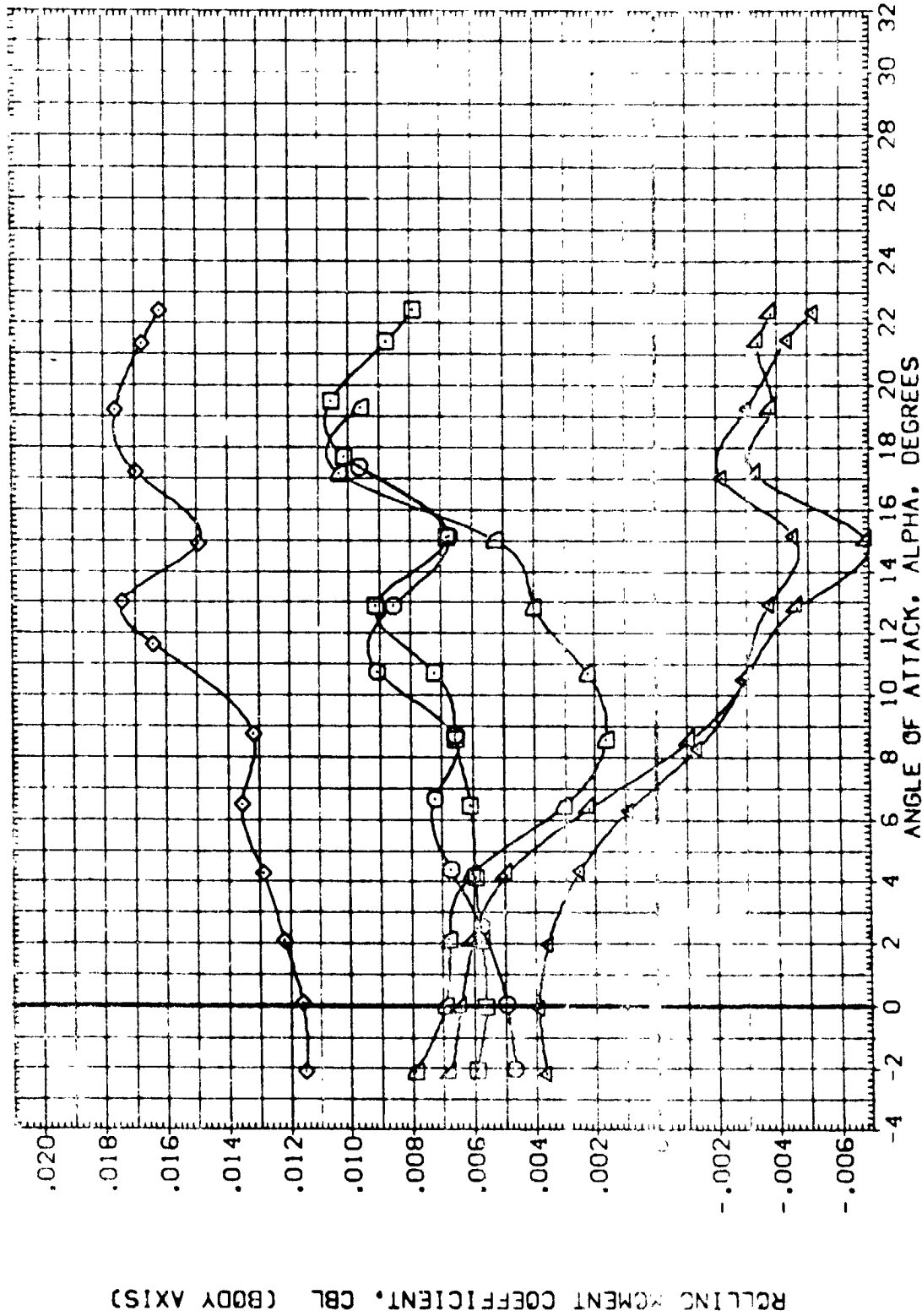


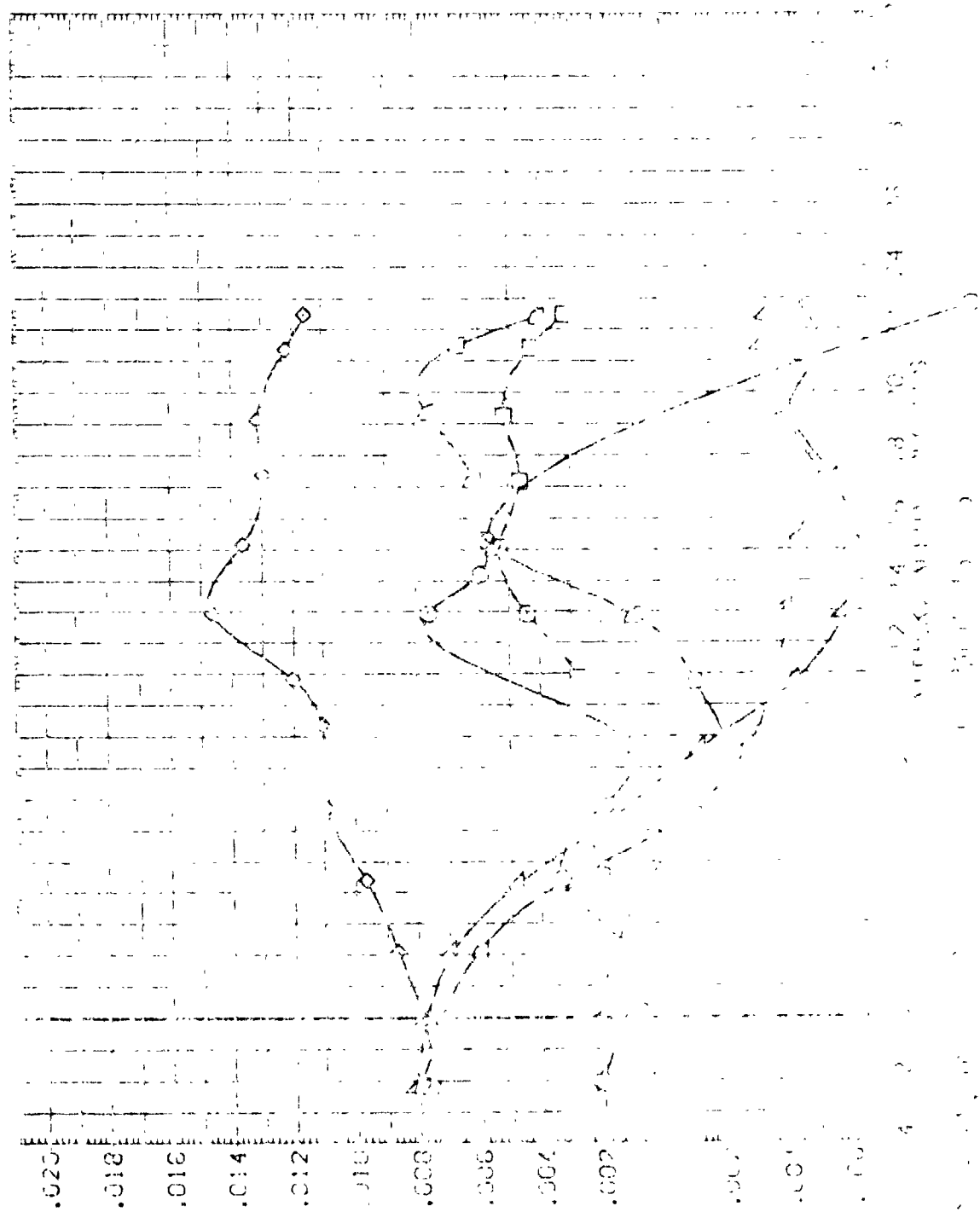
FIGURE 11. OUTBOARD AILERON ROLL CHARACTERISTICS

(B)MACH = .80





DATA SET	SYMBOL	CONF.	LOCATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000
LA-48	8-5T	127	SSC R1	5.000	-20.000	-20.000	-5.000



ROLLING MOMENT (LBDY AXIS)

STRESS (LBDY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF
1-18	1-18	1-18
1-19	1-19	1-19
1-20	1-20	1-20
1-21	1-21	1-21
1-22	1-22	1-22
1-23	1-23	1-23
1-24	1-24	1-24
1-25	1-25	1-25
1-26	1-26	1-26
1-27	1-27	1-27
1-28	1-28	1-28
1-29	1-29	1-29
1-30	1-30	1-30
1-31	1-31	1-31
1-32	1-32	1-32
1-33	1-33	1-33
1-34	1-34	1-34
1-35	1-35	1-35
1-36	1-36	1-36
1-37	1-37	1-37
1-38	1-38	1-38
1-39	1-39	1-39
1-40	1-40	1-40
1-41	1-41	1-41
1-42	1-42	1-42
1-43	1-43	1-43
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1-93	1-93	1-93
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1-95	1-95	1-95
1-96	1-96	1-96
1-97	1-97	1-97
1-98	1-98	1-98
1-99	1-99	1-99
1-100	1-100	1-100

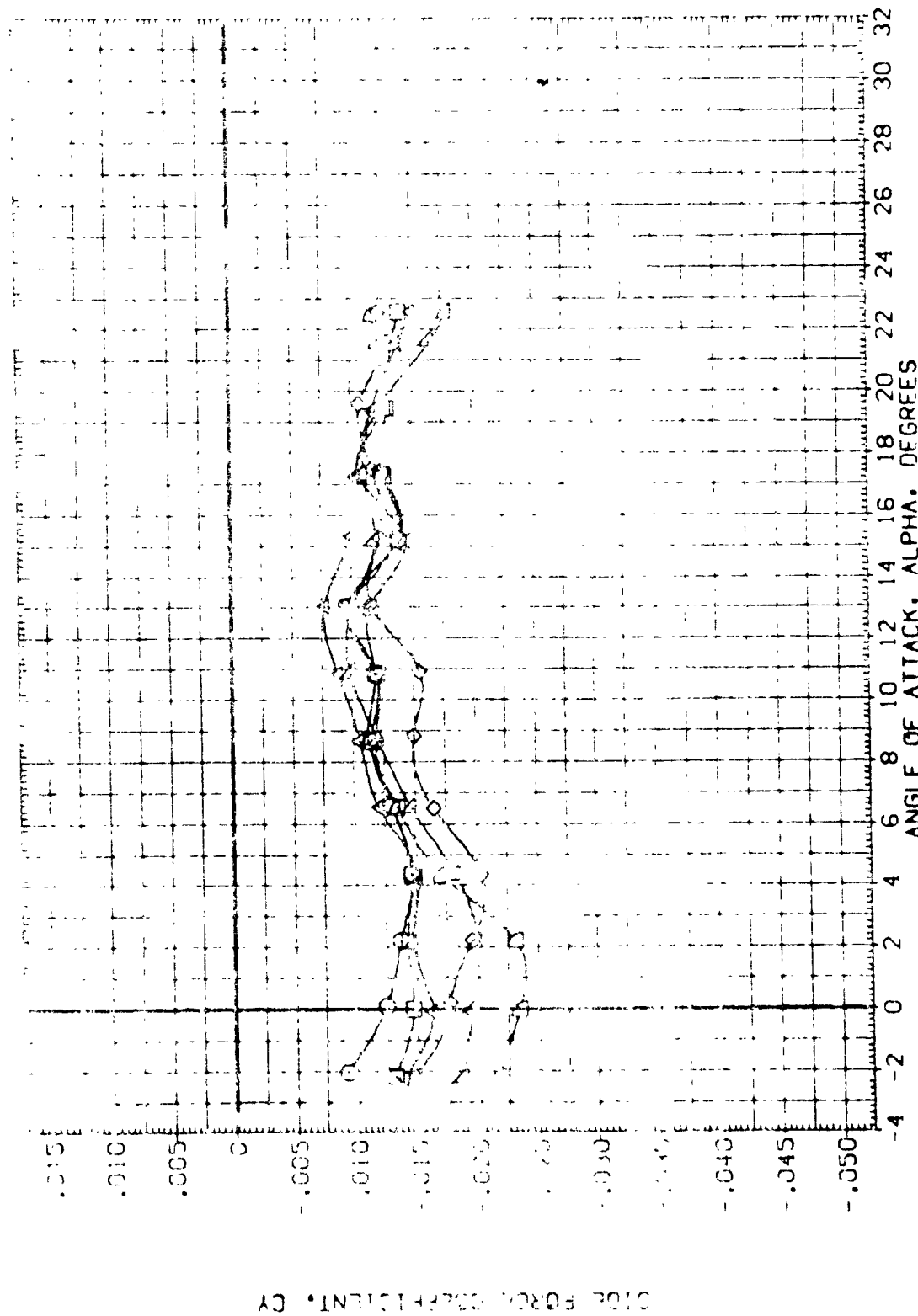


FIGURE 11. OUTBOARDAILERON ROLL CHARACTERISTICS

(O)MACH = .90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(A1007)	LA-48 8-FT TPT 580 RI -0028/128	5.000	0.000	0.000	-5.000
(A1008)	LA-48 8-FT TPT 580 RI -0028/128	5.000	0.000	0.000	-5.000
(A1009)	LA-48 8-FT TPT 580 RI -0028/128	5.000	0.000	0.000	-5.000
(A1010)	LA-48 8-FT TPT 580 RI -0028/128	5.000	0.000	0.000	-5.000
(A1011)	LA-48 8-FT TPT 580 RI -0028/128	5.000	0.000	0.000	-5.000
(A1012)	LA-48 8-FT TPT 580 RI -0028/128	5.000	0.000	0.000	-5.000

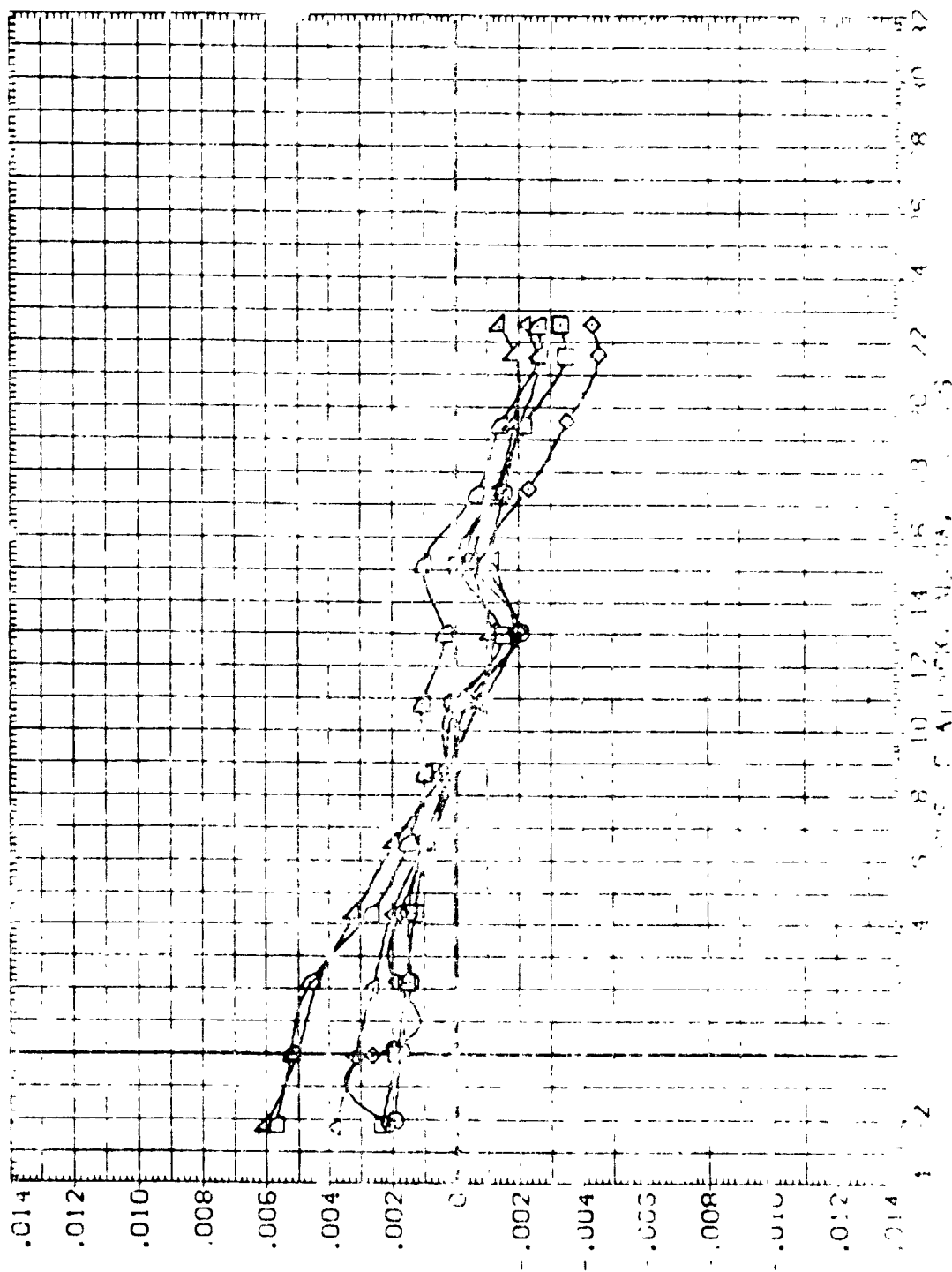


FIGURE 11 YAWING MOMENT COEFFICIENT (CYN) VS. ANGLE OF ATTACK (ALPHA)



DATA SET 5000  
 (007)  
 (008)  
 (009)  
 (010)  
 (011)  
 (012)

CONFIGURATION DESCRIPTION  
 A-46 8-ET PT 800 RI-0898/38  
 A-46 8-ET PT 800 RI-0898/38  
 A-46 8-ET PT 800 RI-0898/38  
 A-46 8-ET PT 800 RI-0898/38  
 A-46 8-ET PT 800 RI-0898/38

ELEV-0 ELEV-1 ELEV-2 ELEV-3  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000

ELEV-4 ELEV-5 ELEV-6 ELEV-7  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000

ELEV-8 ELEV-9 ELEV-10 ELEV-11  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000

ELEV-12 ELEV-13 ELEV-14 ELEV-15  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000  
 0.000 0.000 0.000 0.000

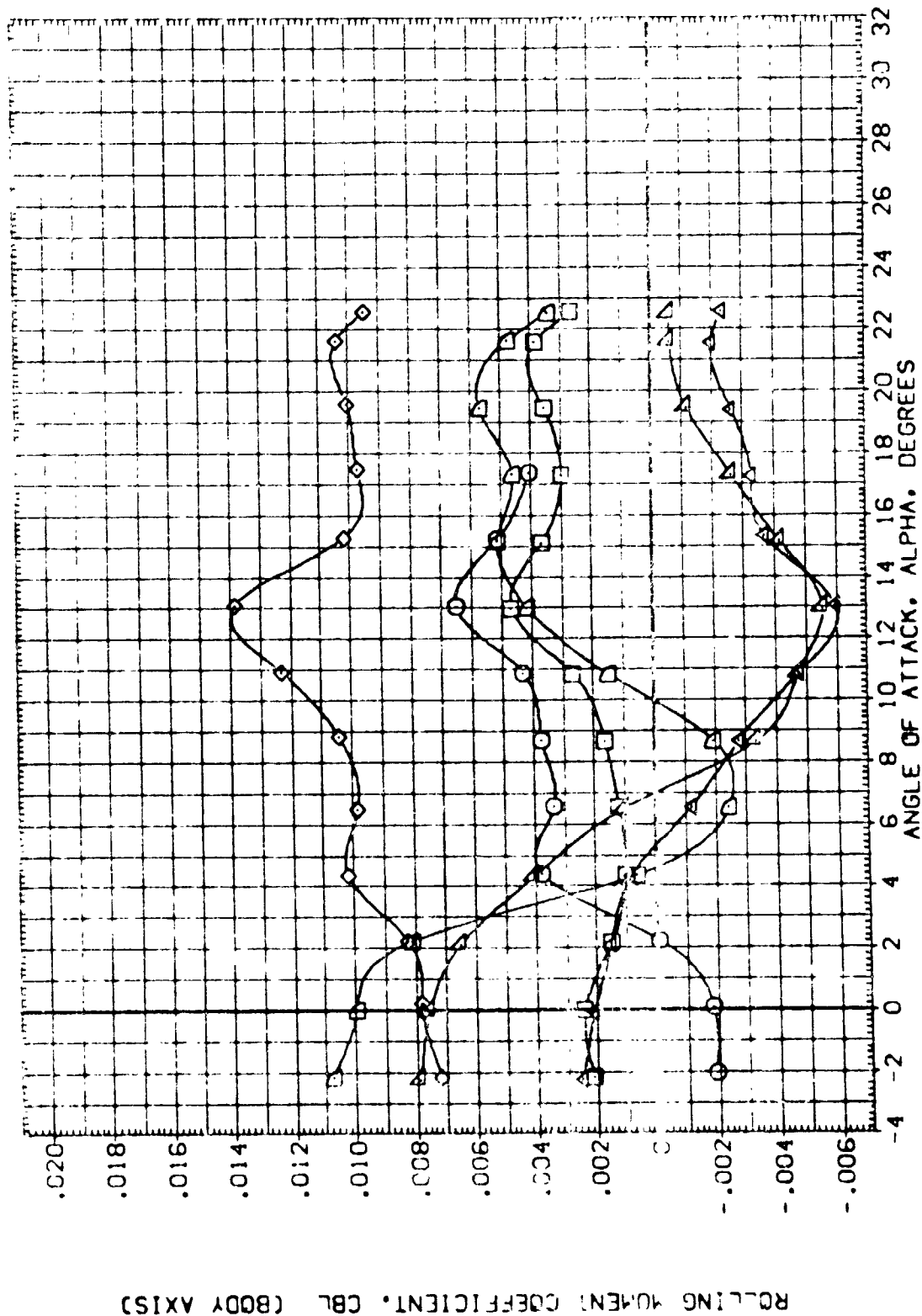
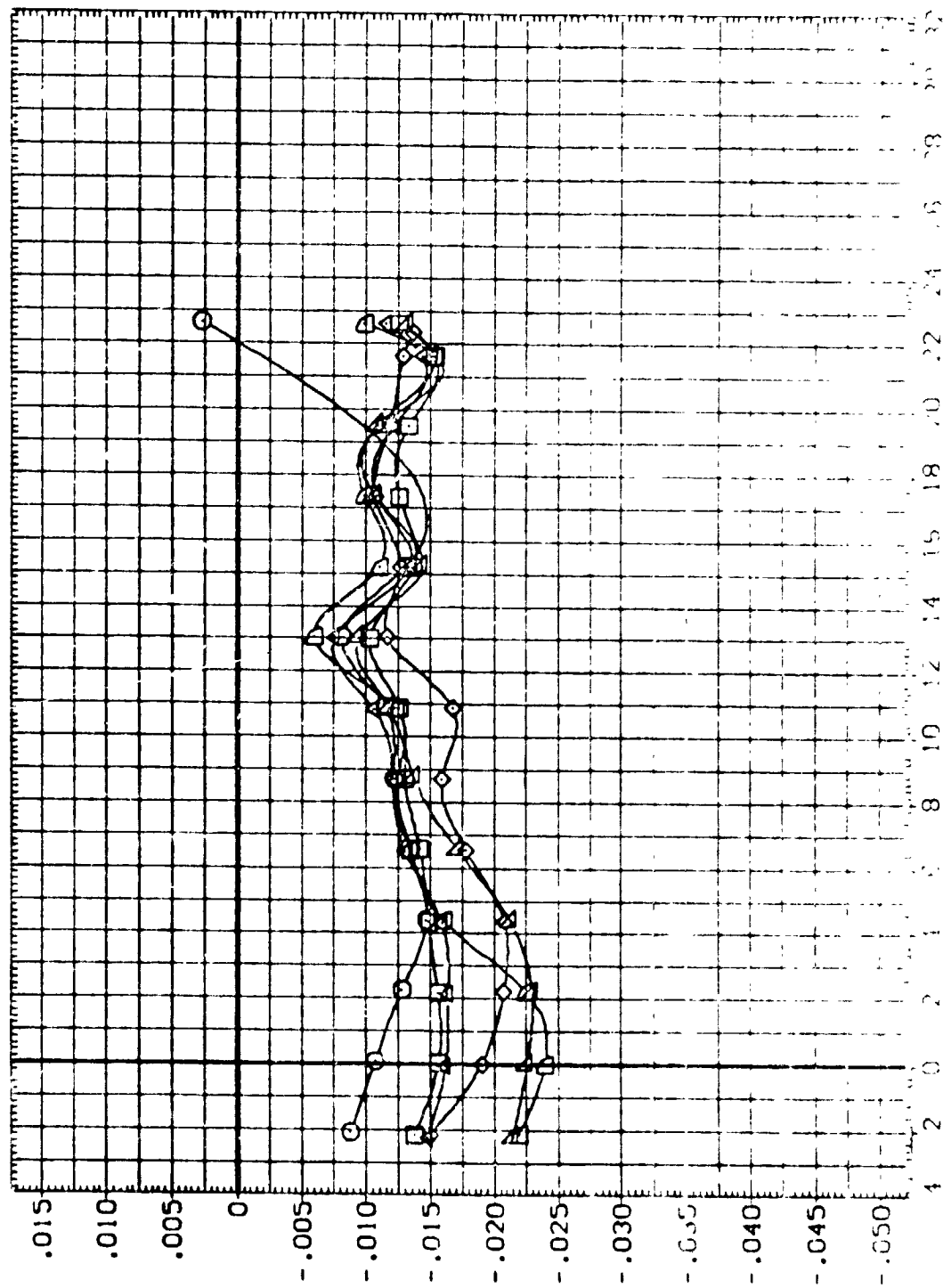


FIGURE 11. OUTBOARD AILERON ROLL CHARACTERISTICS

(0)MACH = .90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-LB	ELV-LI	ELV-RI	ELV-RB
(A1007)	LA-48 8-FT TPT 680 RI-0898/39	5.000	.000	.000	-5.000
(A1008)	LA-48 8-FT TPT 680 RI-0898/39	5.000	-20.000	-20.000	-5.000
(A1009)	LA-48 8-FT TPT 680 RI-0898/39	10.000	-20.000	-20.000	-10.000
(A1010)	LA-48 8-FT TPT 680 RI-0898/39	-15.000	-20.000	-20.000	-25.000
(A1011)	LA-48 8-FT TPT 680 RI-0898/39	-10.000	-20.000	-20.000	-30.000
(A1012)	LA-48 8-FT TPT 680 RI-0898/39	.000	-10.000	-10.000	-20.000



SIDE FORCE COEFFICIENT, CY

ANGLE OF ATTACK, ALPHA

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-LC	ELV-LT	ELV-R0
[A11007]	A-18 8-FT IPT 680 R1 -0898/39	3.000	3.000	3.000
[A11008]	A-18 8-FT IPT 680 R1 -0898/39	3.000	3.000	3.000
[A11009]	A-18 8-FT IPT 680 R1 -0898/39	3.000	3.000	3.000
[A11010]	A-18 8-FT IPT 680 R1 -0898/39	3.000	3.000	3.000
[A11011]	A-18 8-FT IPT 680 R1 -0898/39	3.000	3.000	3.000
[A11012]	A-18 8-FT IPT 680 R1 -0898/39	3.000	3.000	3.000

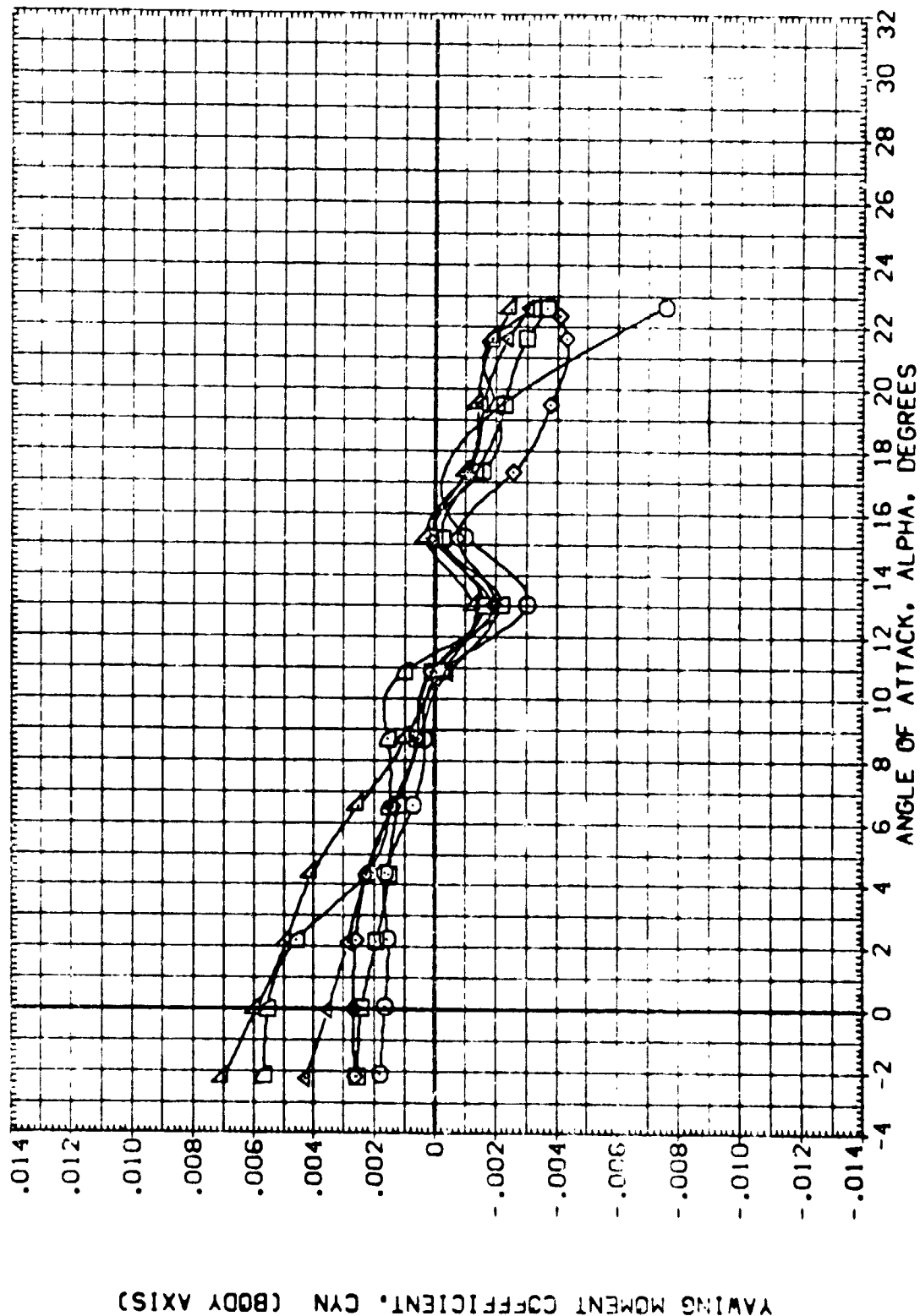
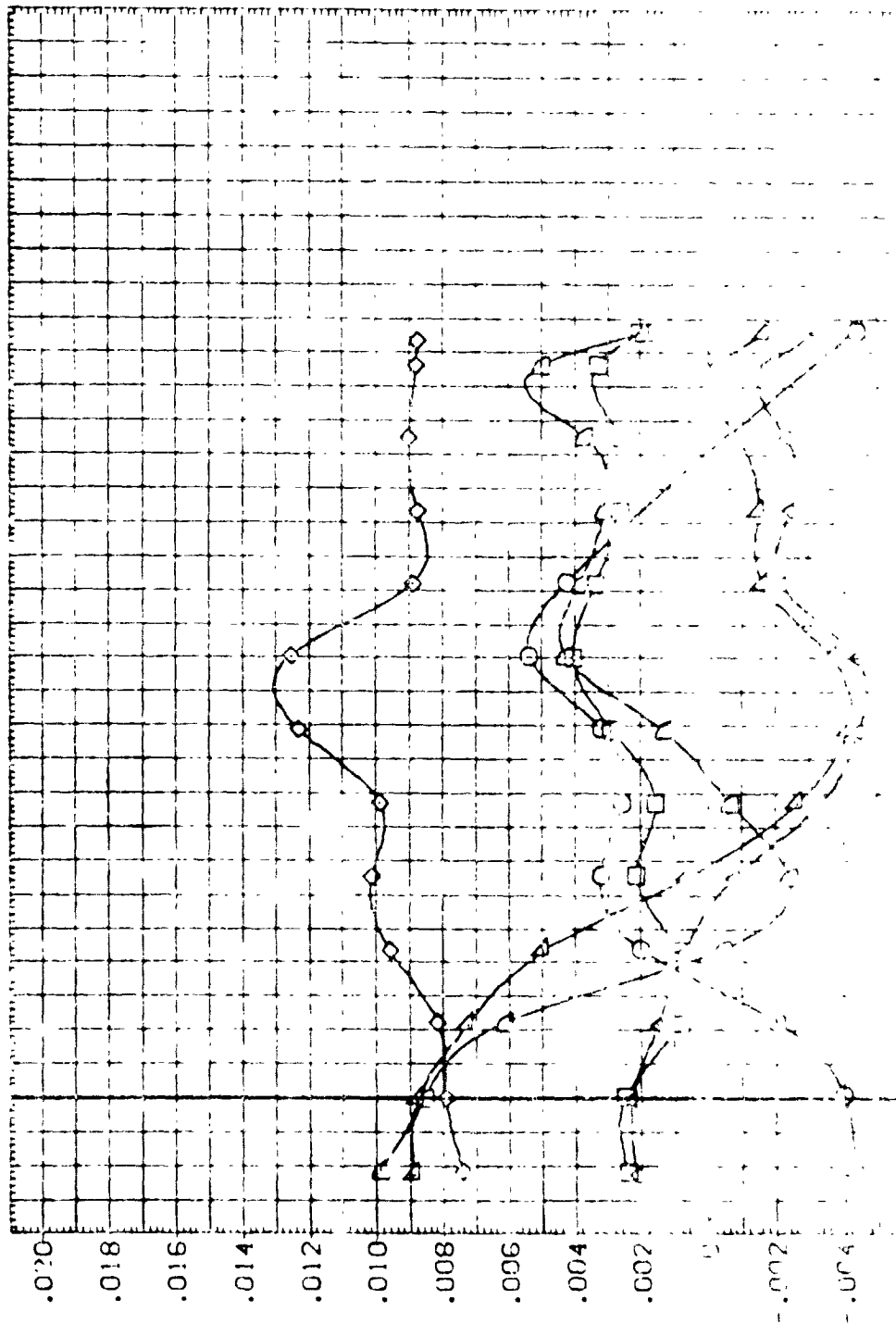


FIGURE 11. OUTBOARD AILERON ROLL CHARACTERISTICS

(C)MACH = .92

DATA SET	SYMBOL	LINE	LOCATION	DESCRIPTION	ELV-LO	ELV-LI	ELV-RI	ELV-RO
LA-1	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-2	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-3	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-4	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-5	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-6	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-7	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-8	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-9	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-10	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-11	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000
LA-12	8-FT	PT	630	R-10888/139	5.000	.000	.000	-5.000







DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
01007	01 00 00	01 00 00
01008	01 00 00	01 00 00
01009	01 00 00	01 00 00
01010	01 00 00	01 00 00
01011	01 00 00	01 00 00
01012	01 00 00	01 00 00
01013	01 00 00	01 00 00
01014	01 00 00	01 00 00
01015	01 00 00	01 00 00
01016	01 00 00	01 00 00
01017	01 00 00	01 00 00
01018	01 00 00	01 00 00
01019	01 00 00	01 00 00
01020	01 00 00	01 00 00
01021	01 00 00	01 00 00
01022	01 00 00	01 00 00
01023	01 00 00	01 00 00
01024	01 00 00	01 00 00
01025	01 00 00	01 00 00
01026	01 00 00	01 00 00
01027	01 00 00	01 00 00
01028	01 00 00	01 00 00
01029	01 00 00	01 00 00
01030	01 00 00	01 00 00
01031	01 00 00	01 00 00
01032	01 00 00	01 00 00
01033	01 00 00	01 00 00
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01035	01 00 00	01 00 00
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01039	01 00 00	01 00 00
01040	01 00 00	01 00 00
01041	01 00 00	01 00 00
01042	01 00 00	01 00 00
01043	01 00 00	01 00 00
01044	01 00 00	01 00 00
01045	01 00 00	01 00 00
01046	01 00 00	01 00 00
01047	01 00 00	01 00 00
01048	01 00 00	01 00 00
01049	01 00 00	01 00 00
01050	01 00 00	01 00 00
01051	01 00 00	01 00 00
01052	01 00 00	01 00 00
01053	01 00 00	01 00 00
01054	01 00 00	01 00 00
01055	01 00 00	01 00 00
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01057	01 00 00	01 00 00
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01067	01 00 00	01 00 00
01068	01 00 00	01 00 00
01069	01 00 00	01 00 00
01070	01 00 00	01 00 00
01071	01 00 00	01 00 00
01072	01 00 00	01 00 00
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01076	01 00 00	01 00 00
01077	01 00 00	01 00 00
01078	01 00 00	01 00 00
01079	01 00 00	01 00 00
01080	01 00 00	01 00 00
01081	01 00 00	01 00 00
01082	01 00 00	01 00 00
01083	01 00 00	01 00 00
01084	01 00 00	01 00 00
01085	01 00 00	01 00 00
01086	01 00 00	01 00 00
01087	01 00 00	01 00 00
01088	01 00 00	01 00 00
01089	01 00 00	01 00 00
01090	01 00 00	01 00 00
01091	01 00 00	01 00 00
01092	01 00 00	01 00 00
01093	01 00 00	01 00 00
01094	01 00 00	01 00 00
01095	01 00 00	01 00 00
01096	01 00 00	01 00 00
01097	01 00 00	01 00 00
01098	01 00 00	01 00 00
01099	01 00 00	01 00 00
01100	01 00 00	01 00 00

ROLLING COEFFICIENT (BODY AXIS)

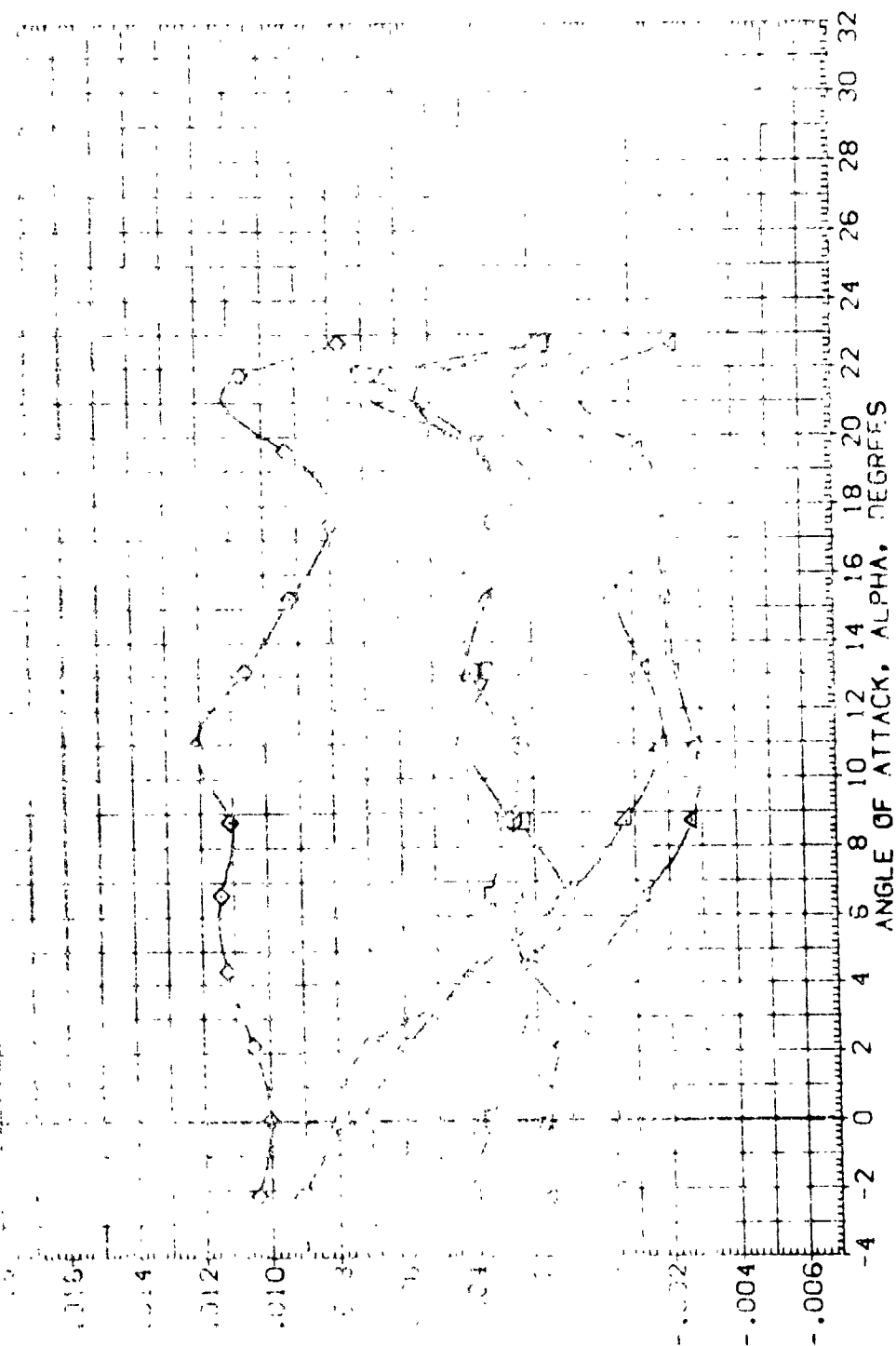


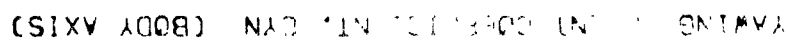
FIGURE 11. OUTBOARDAILERON ROLL CHARACTERISTICS

(F)MACH = .95





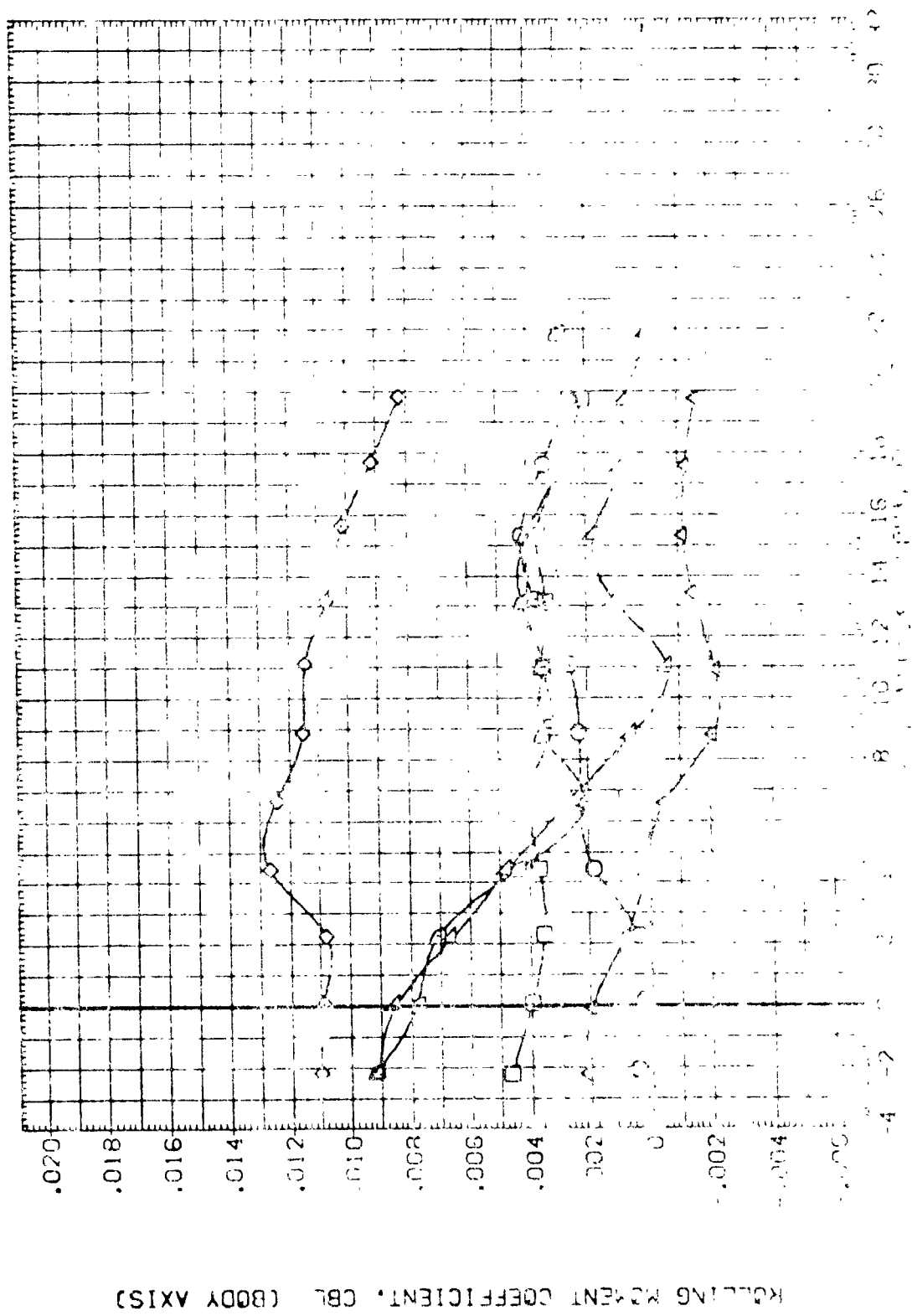
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8987 8988  
8989 8990  
8991 8992  
8993 8994  
8995 8996  
8997 8998  
8999 9000



{G}MACH = .98



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
[A11007]	LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON	5.000	.000	.000	-5.000
[A11008]	LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON	5.000	-20.000	-20.000	-5.000
[A11009]	LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON	10.000	-20.000	-20.000	-10.000
[A11010]	LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON	-15.000	-20.000	-20.000	-25.000
[A11011]	LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON	-10.000	-20.000	-20.000	-30.000
[A11012]	LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON	.000	-10.000	-10.000	-20.000



LA-48 8-FT IPT 680 R1 -0693/23 003 SPLIT ELEVON

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      UNIT

007	A-48 8-FT 100 RI-0000	00000000
008	A-48 8-FT 100 RI-0000	00000000
009	A-48 8-FT 100 RI-0000	00000000
010	A-48 8-FT 100 RI-0000	00000000
011	A-48 8-FT 100 RI-0000	00000000
012	A-48 8-FT 100 RI-0000	00000000
013	A-48 8-FT 100 RI-0000	00000000
014	A-48 8-FT 100 RI-0000	00000000
015	A-48 8-FT 100 RI-0000	00000000
016	A-48 8-FT 100 RI-0000	00000000
017	A-48 8-FT 100 RI-0000	00000000
018	A-48 8-FT 100 RI-0000	00000000
019	A-48 8-FT 100 RI-0000	00000000
020	A-48 8-FT 100 RI-0000	00000000
021	A-48 8-FT 100 RI-0000	00000000
022	A-48 8-FT 100 RI-0000	00000000
023	A-48 8-FT 100 RI-0000	00000000
024	A-48 8-FT 100 RI-0000	00000000
025	A-48 8-FT 100 RI-0000	00000000
026	A-48 8-FT 100 RI-0000	00000000
027	A-48 8-FT 100 RI-0000	00000000
028	A-48 8-FT 100 RI-0000	00000000
029	A-48 8-FT 100 RI-0000	00000000
030	A-48 8-FT 100 RI-0000	00000000
031	A-48 8-FT 100 RI-0000	00000000
032	A-48 8-FT 100 RI-0000	00000000
033	A-48 8-FT 100 RI-0000	00000000
034	A-48 8-FT 100 RI-0000	00000000
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038	A-48 8-FT 100 RI-0000	00000000
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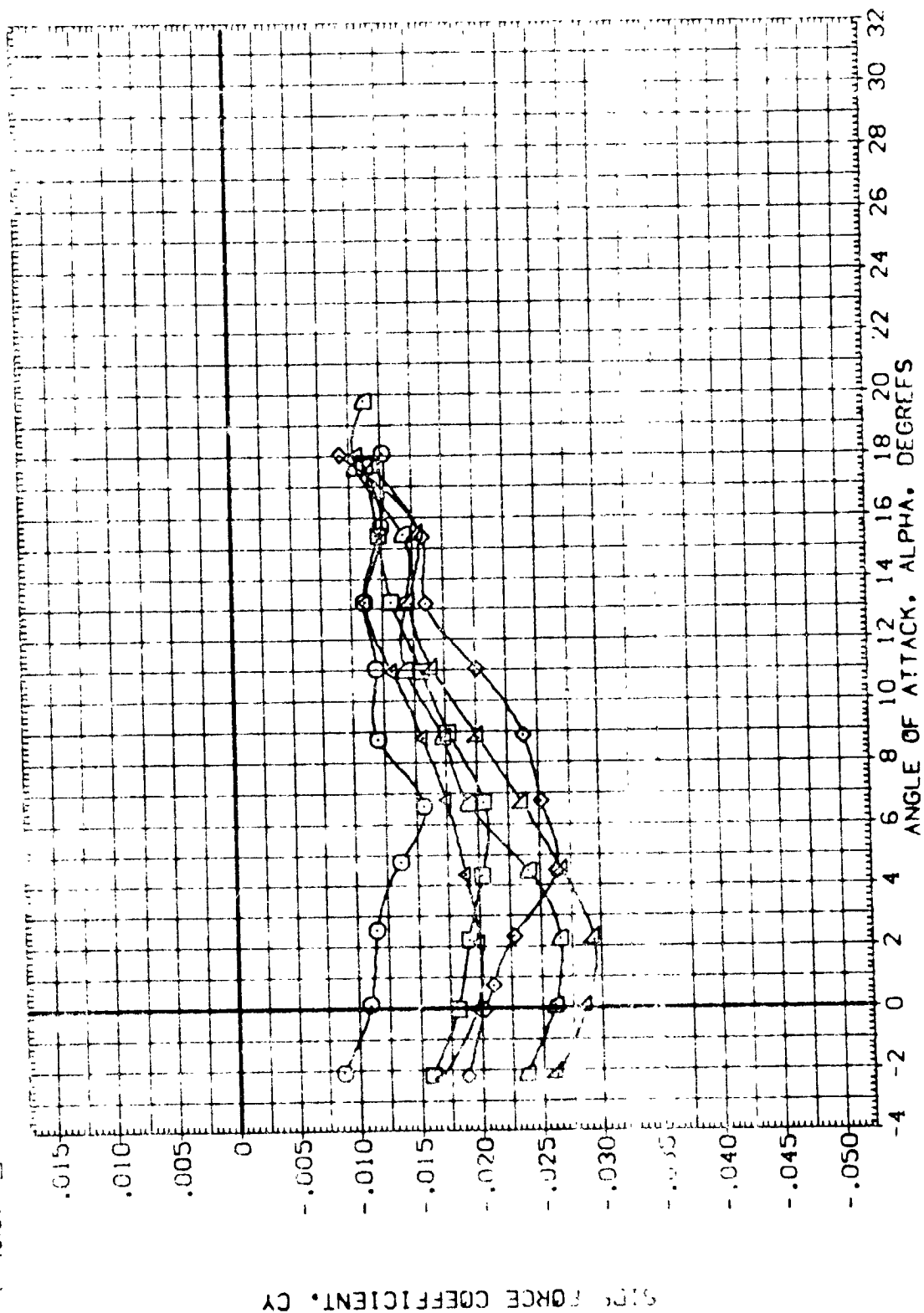
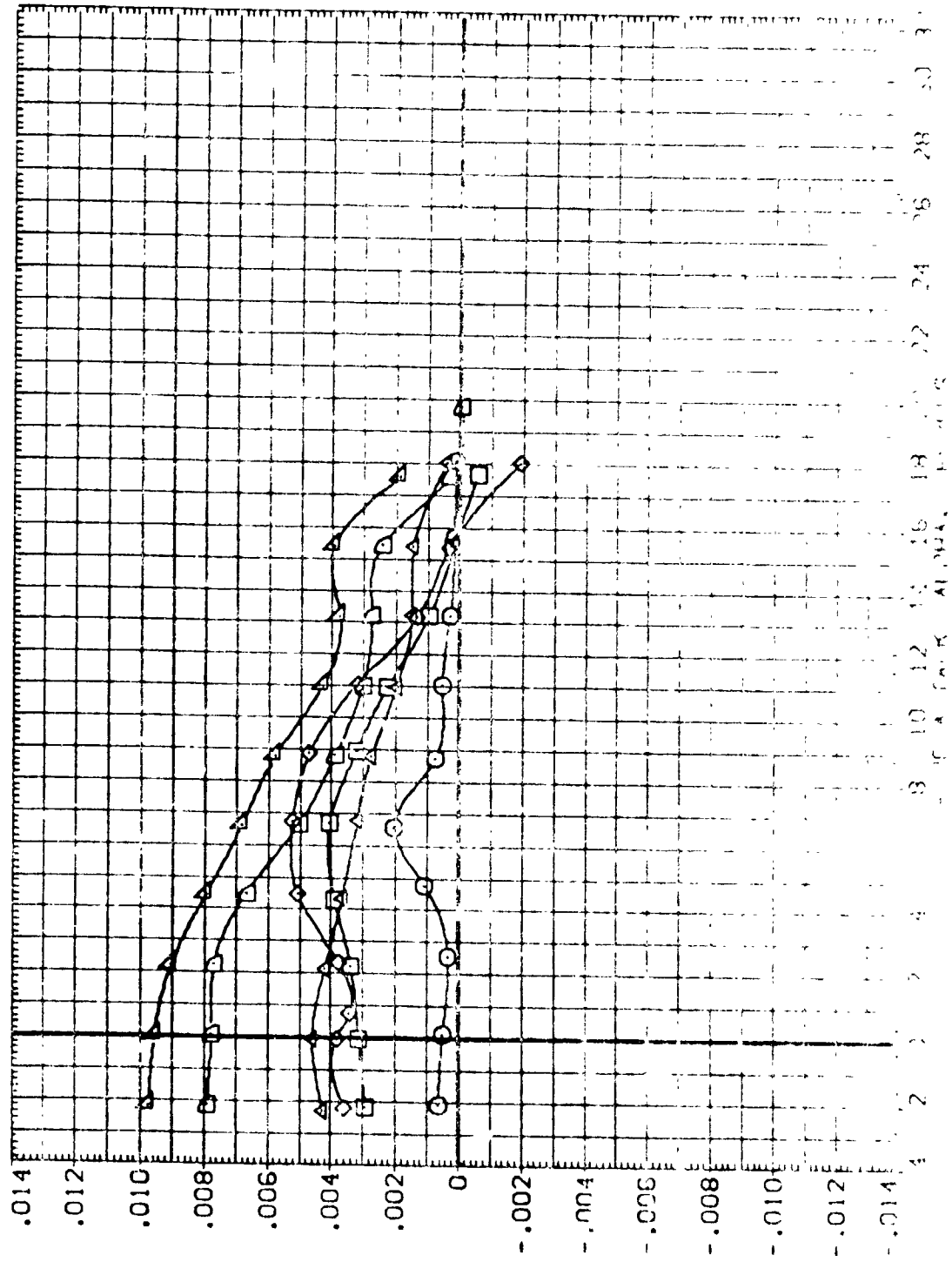


FIGURE 11. OUTBOARDAILERON ROLL CHARACTERISTICS

(H)MACH = 1.08

# YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
[A1]007	LA-48 8-FT TPT 680 RI-0833/139 348 SPL IT ELEVON	5.000	.000	.000	-5.000
[A1]008	LA-48 8-FT TPT 680 RI-0833/139 348 SPL IT ELEVON	5.000	-20.000	-20.000	-5.000
[A1]009	LA-48 8-FT TPT 680 RI-0833/139 348 SPL IT ELEVON	10.000	-20.000	-20.000	-10.000
[A1]010	LA-48 8-FT TPT 680 RI-0833/139 348 SPL IT ELEVON	-15.000	-20.000	-20.000	-25.000
[A1]011	LA-48 8-FT TPT 680 RI-0833/139 348 SPL IT ELEVON	-10.000	-20.000	-20.000	-30.000
[A1]012	LA-48 8-FT TPT 680 RI-0833/139 348 SPL IT ELEVON	.000	-10.000	-10.000	-20.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L	ELV-R	ELV-R0
(AH)007	LA-48 8-FT TPT 680 RI -0898/39	5.000	5.000	5.000
(AH)008	LA-48 8-FT TPT 680 RI -0898/39	5.000	5.000	5.000
(AH)009	LA-48 8-FT TPT 680 RI -0898/39	5.000	5.000	5.000
(AH)010	LA-48 8-FT TPT 680 RI -0898/39	5.000	5.000	5.000
(AH)011	LA-48 8-FT TPT 680 RI -0898/39	5.000	5.000	5.000
(AH)012	LA-48 8-FT TPT 680 RI -0898/39	5.000	5.000	5.000

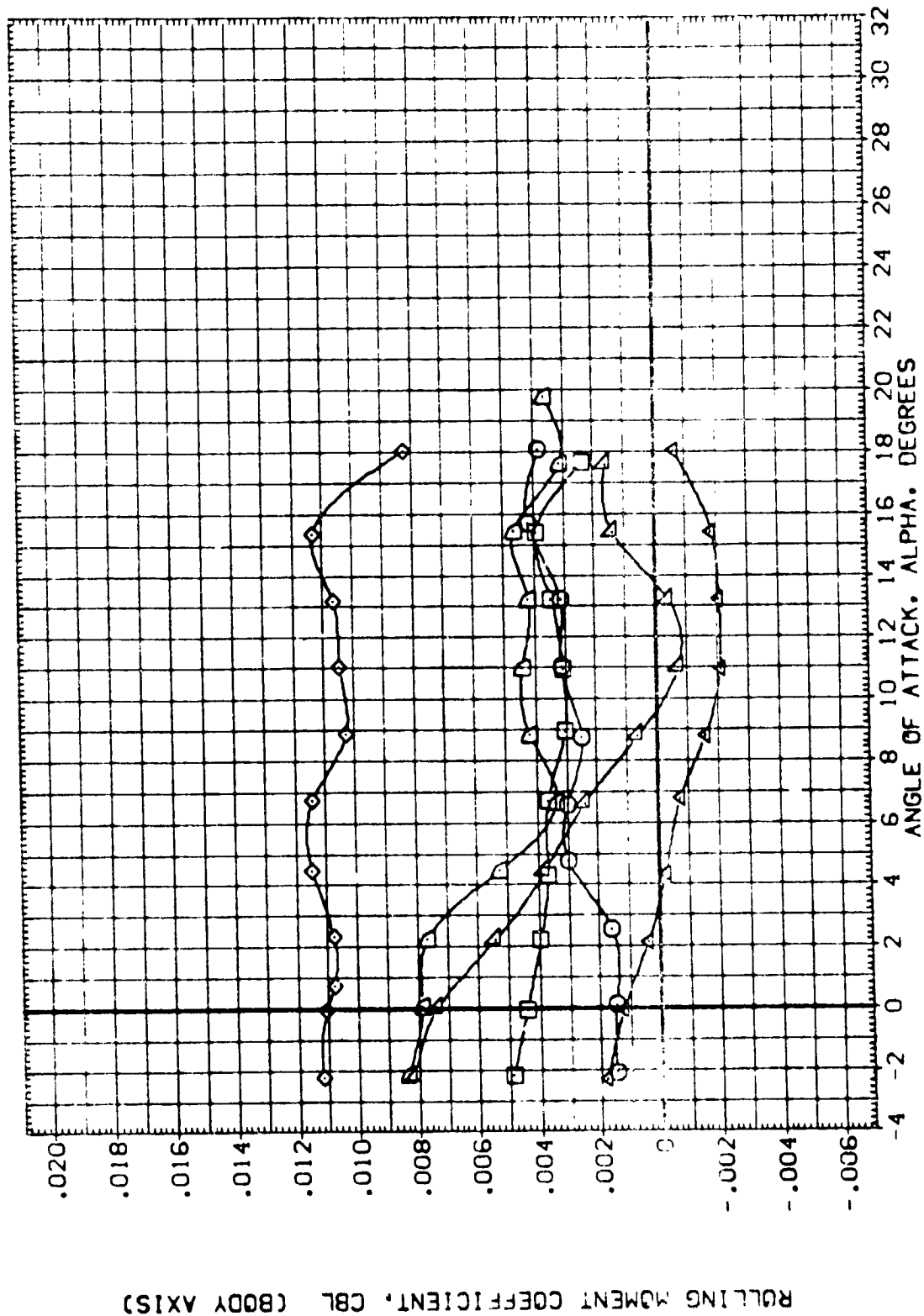
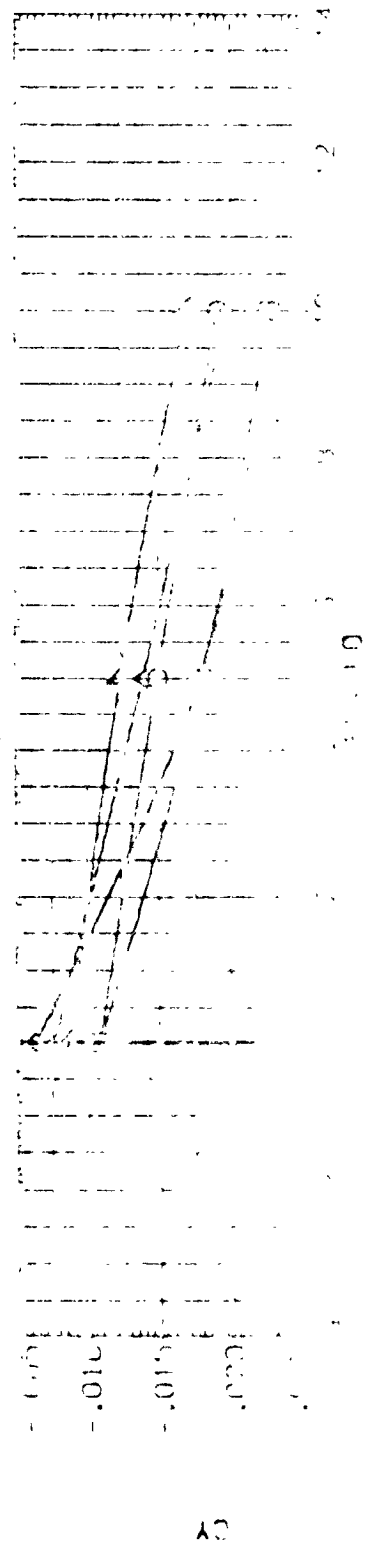
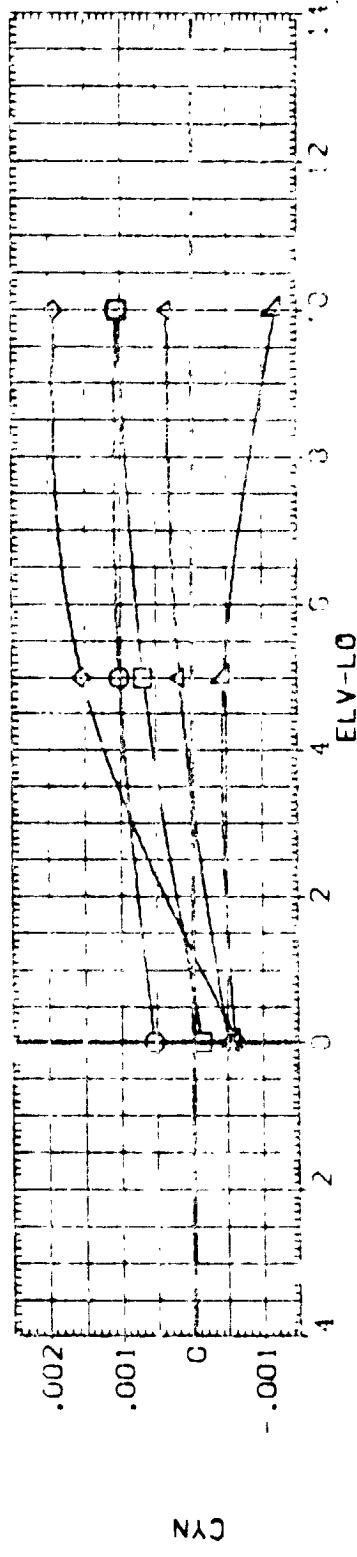
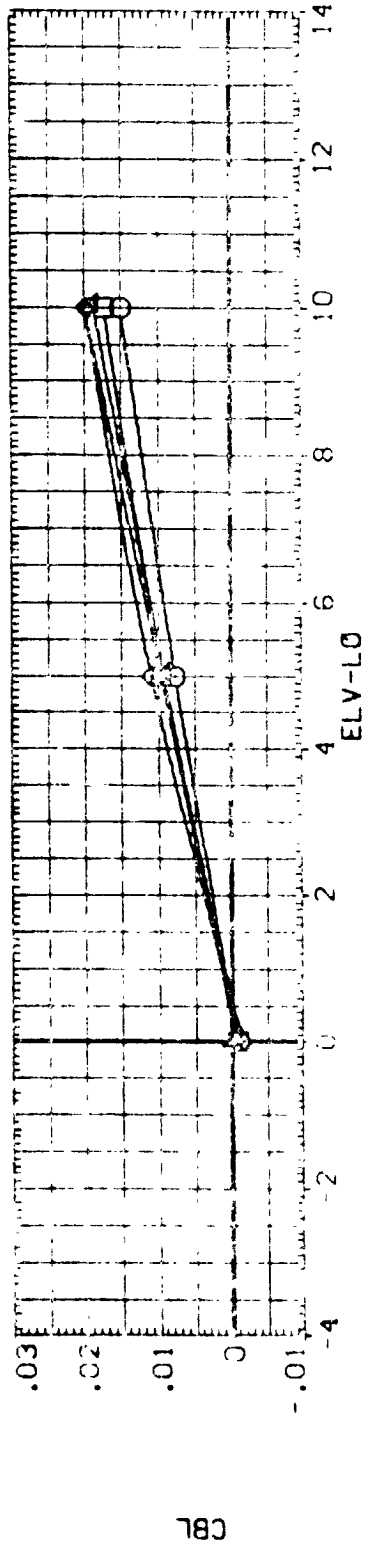


FIGURE 11. OUTBOARD AILERON ROLL CHARACTERISTICS

(M)MACH = 1.08

DATA SET SYMBOL      CONF IGURATION DESCRIPTION      ALPHA

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	ALPHA
(BH)A01)	LA-16 (-FT TPT 680 RI-0898/139 DR8 SPL IT ELEVON	.000
(BH)A02)	LA-16 (8-FT TPT 680 RI-0898/139 DR8 SPL IT ELEVON	5.000
(BH)A03)	LA-16 (8-FT TPT 680 RI-0898/139 DR8 SPL IT ELEVON	10.000
(BH)A04)	LA-16 (8-FT TPT 680 RI-0898/139 DR8 SPL IT ELEVON	15.000
(BH)A05)	LA-16 (8-FT TPT 680 RI-0898/139 DR8 SPL IT ELEVON	18.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA

(B-1A01)	LA-48 8-FT IPT 580 RI-0898/39	0.00
(B-1A02)	LA-48 8-FT IPT 580 RI-0898/39	0.00
(B-1A03)	LA-48 8-FT IPT 580 RI-0898/39	0.00
(B-1A04)	LA-48 8-FT IPT 580 RI-0898/39	0.00
(B-1A05)	LA-48 8-FT IPT 580 RI-0898/39	0.00

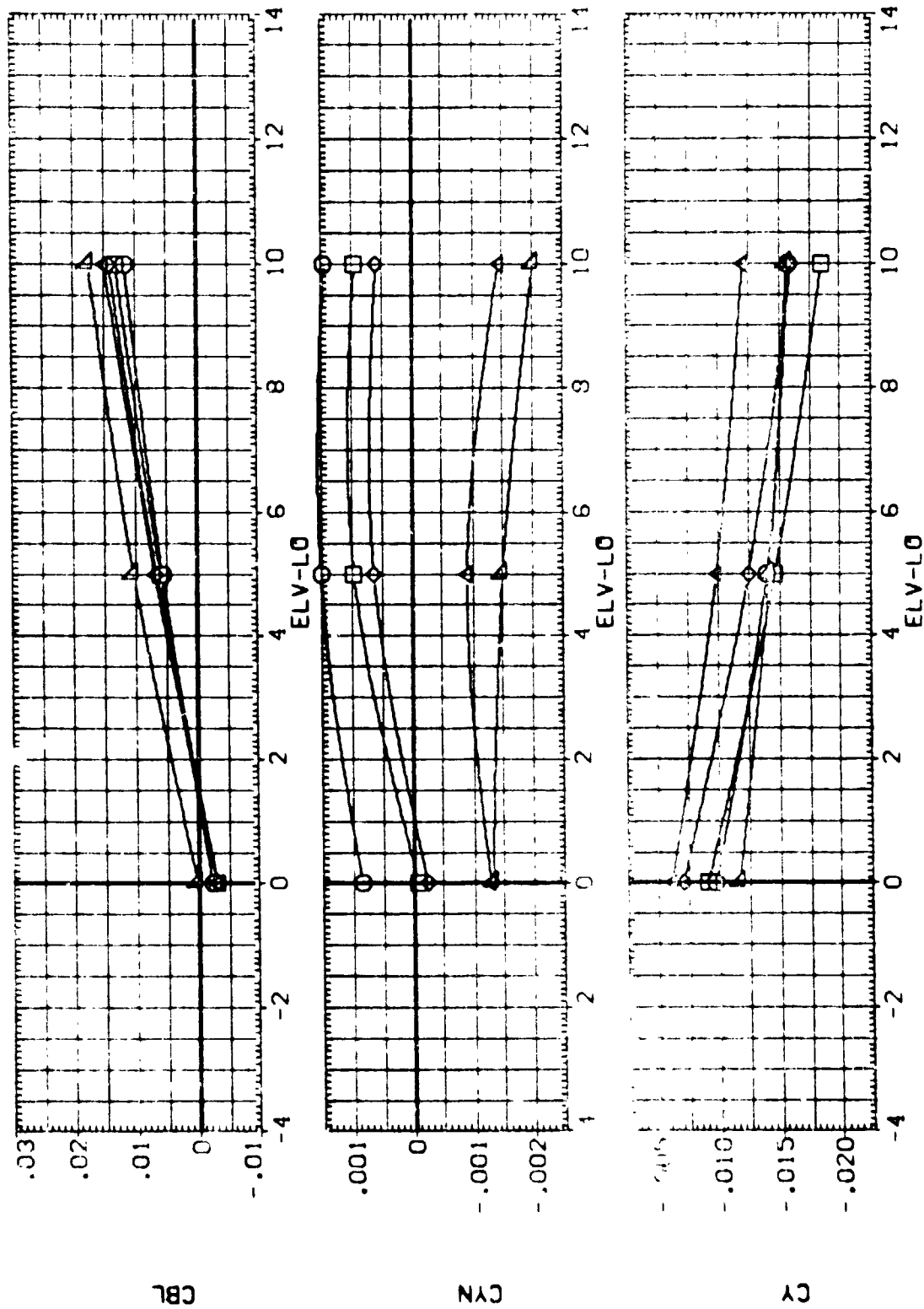
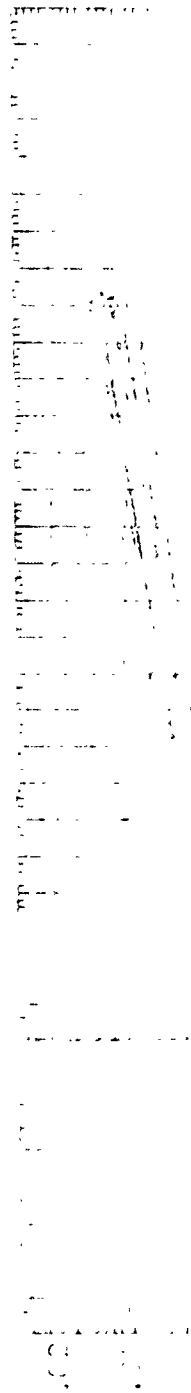


FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS (INBOARD ELEVON DEFLECTED)  
(8)MACH = .80

DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(04)A01	LA-48	8-FT IPT 680 RI-0890	1.00
(04)A02	LA-48	8-FT IPT 680 RI-0890	5.00
(04)A03	LA-48	8-FT IPT 680 RI-0890	10.00
(04)A04	LA-48	8-FT IPT 680 RI-0890	15.00
(04)A05	LA-48	8-FT IPT 680 RI-0890	18.00





DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
3-1A01	4B 3-1	PT	500 01 0008
3-1A02	4B 3-1	PT	500 01 0009
3-1A03	4B 3-1	PT	500 01 0010
3-1A04	4B 3-1	PT	500 01 0011
3-1A05	4B 3-1	PT	500 01 0012

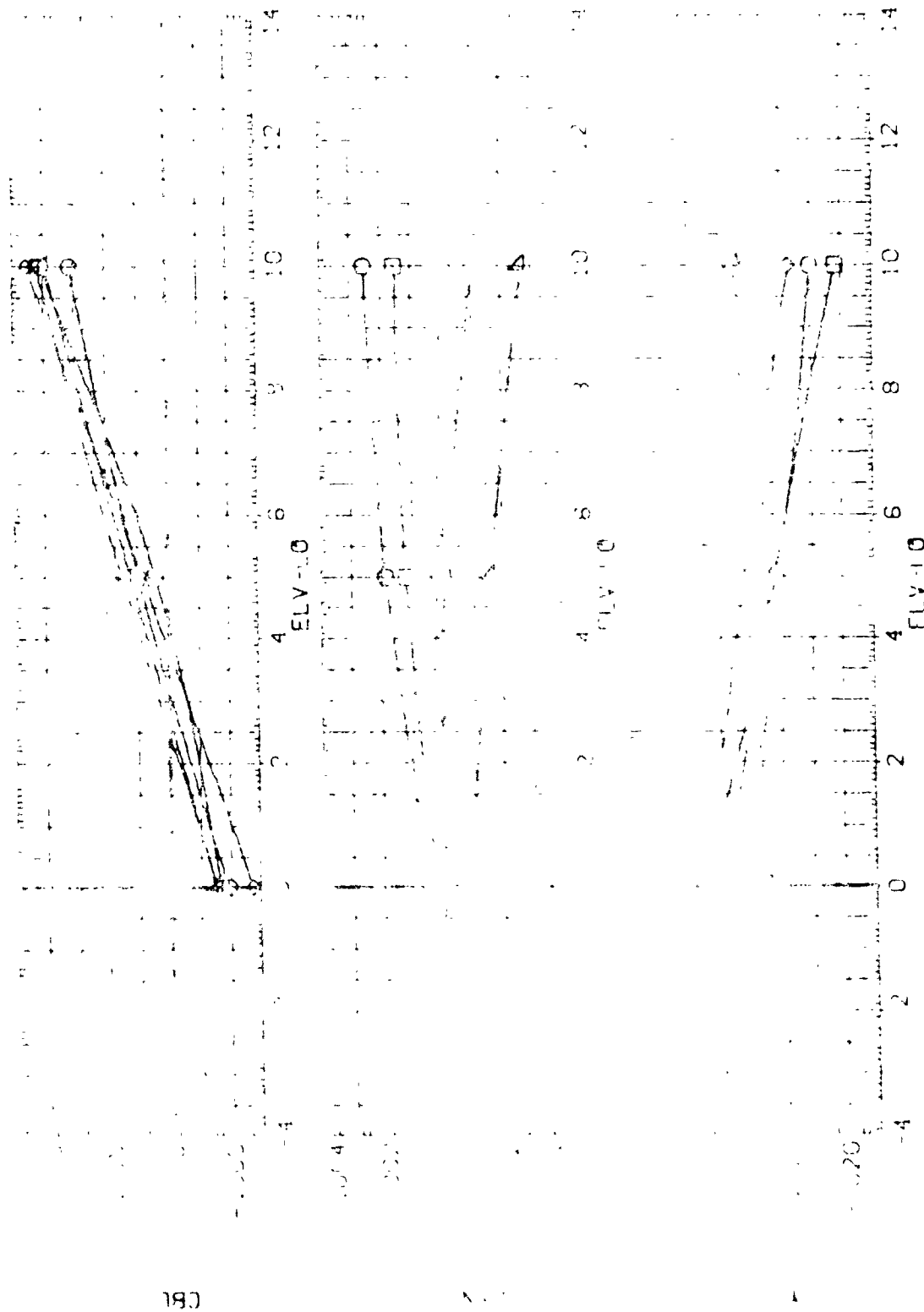


FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS (INBOARD DEFLECTED)  
(C)MACH = .90 PAGE 104





DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(B-1A01)	LA-48 8-FT TPT 680 RI-0898/139 088 SPL IT ELEVON	.000
(B-1A02)	LA-48 8-FT TPT 680 RI-0898/139 088 SPL IT ELEVON	.000
(B-1A03)	LA-48 8-FT TPT 680 RI-0898/139 088 SPL IT ELEVON	.000
(B-1A04)	LA-48 8-FT TPT 680 RI-0898/139 088 SPL IT ELEVON	.000
(B-1A05)	LA-48 8-FT TPT 680 RI-0898/139 088 SPL IT ELEVON	.000

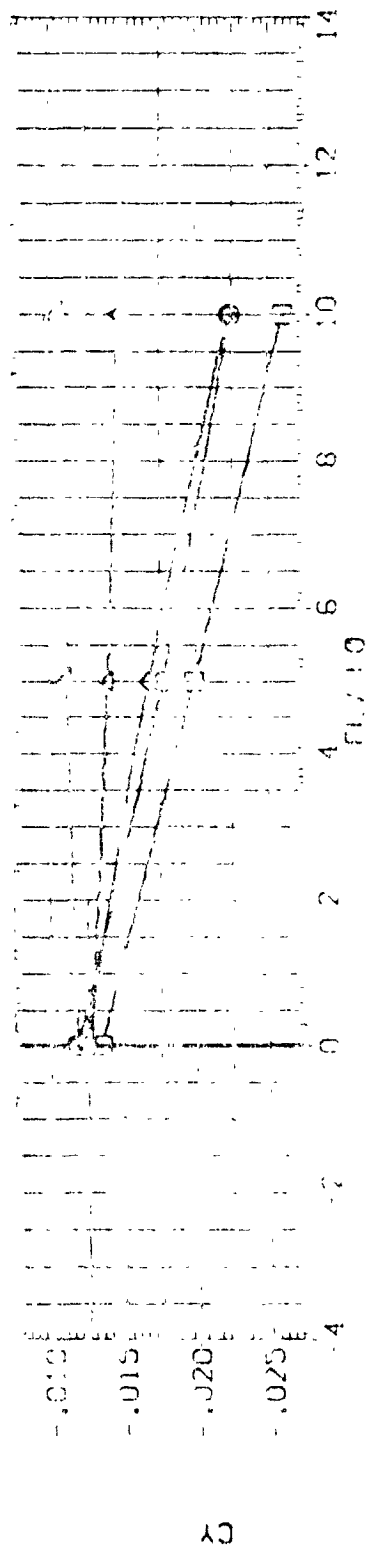
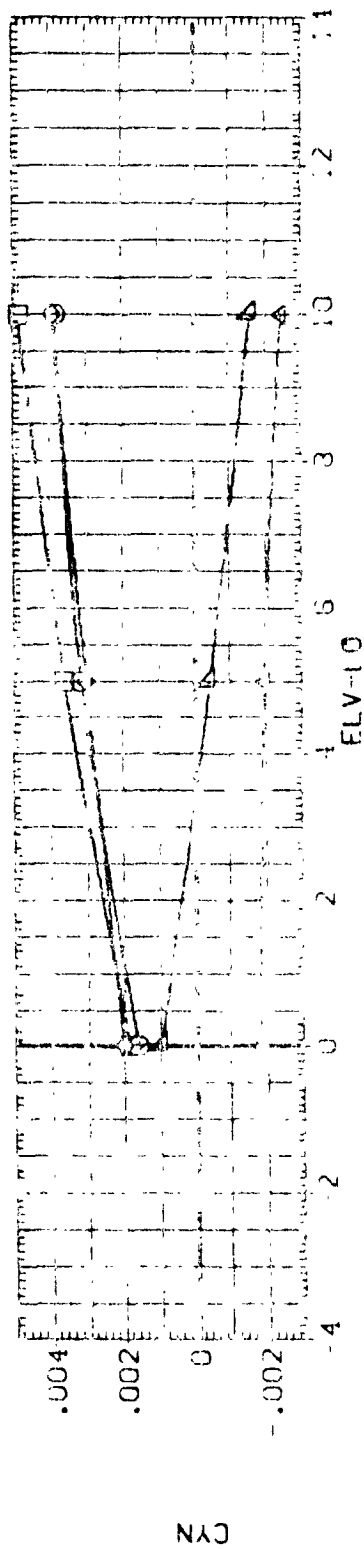
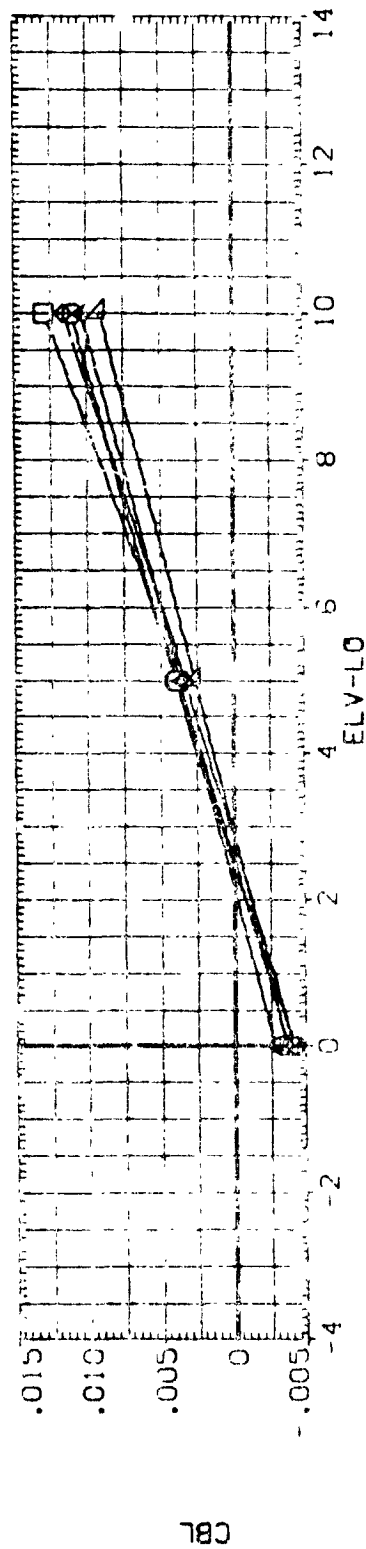


Figure 1. CBL, CYN, and CY vs ELV-L0 for various ALPHA values.

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA

[B]A01)	LA-48 3-FT PT 580 RI -0888/38	0.000
[B]A02)	LA-48 3-FT PT 580 RI -0888/38	0.000
[B]A03)	LA-48 3-FT PT 580 RI -0888/38	0.000
[B]A04)	LA-48 3-FT PT 580 RI -0888/38	0.000
[B]A05)	LA-48 3-FT PT 580 RI -0888/38	0.000

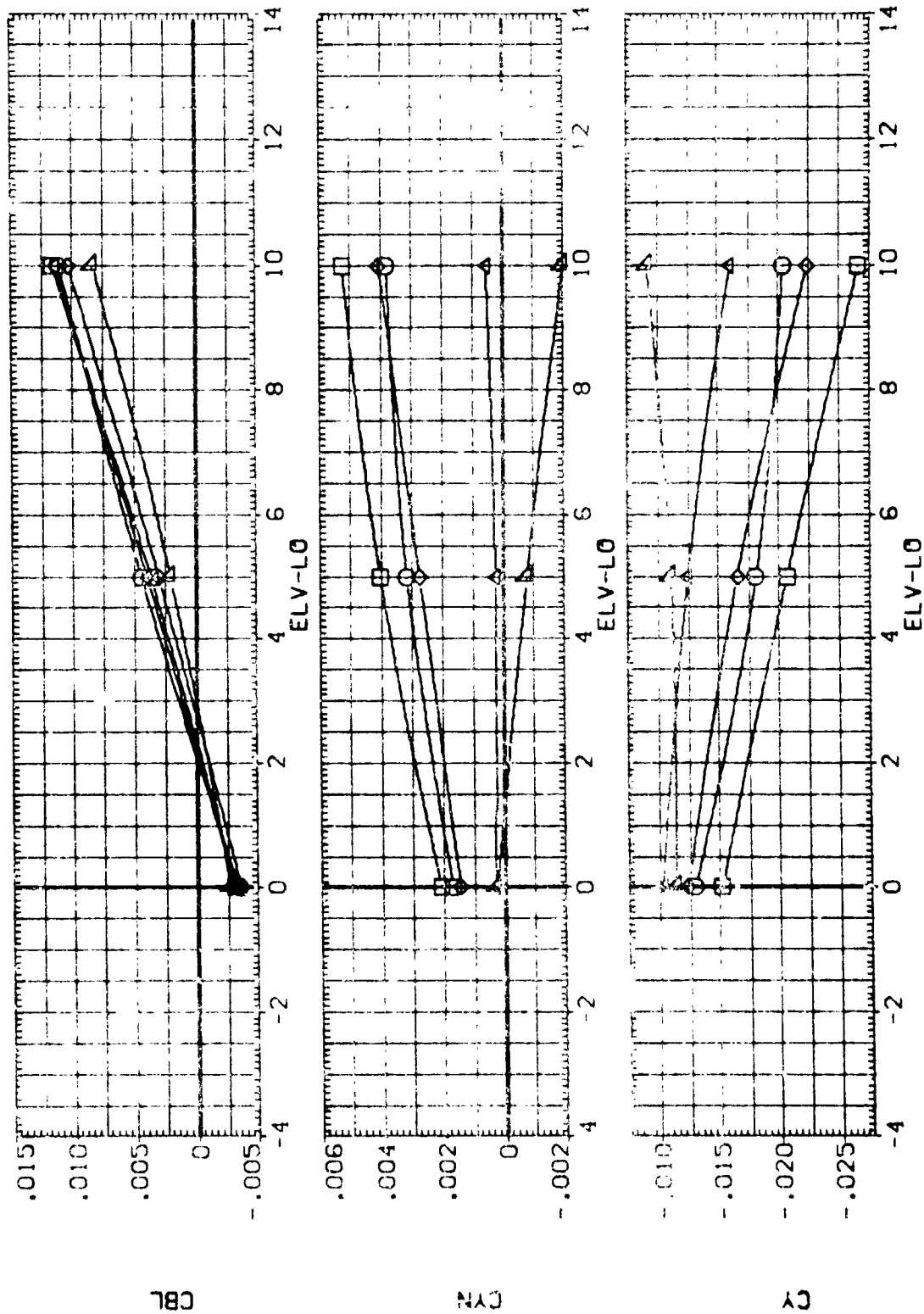


FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS (INBOARD ELEVON DEFLECTED)  
(M)MACH = 1.08

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(CH1003)	LA-48 8-FT IPT 580 R1-0858/39 098 SPL IT ELEVON	.000	-20.000	-20.000	.000
(CH1008)	LA-48 8-FT IPT 580 R1-0858/39 098 SPL IT ELEVON	5.000	-20.000	-20.000	-5.000
(CH1009)	LA-48 8-FT IPT 580 R1-0858/39 098 SPL IT ELEVON	10.000	-20.000	-20.000	-10.000

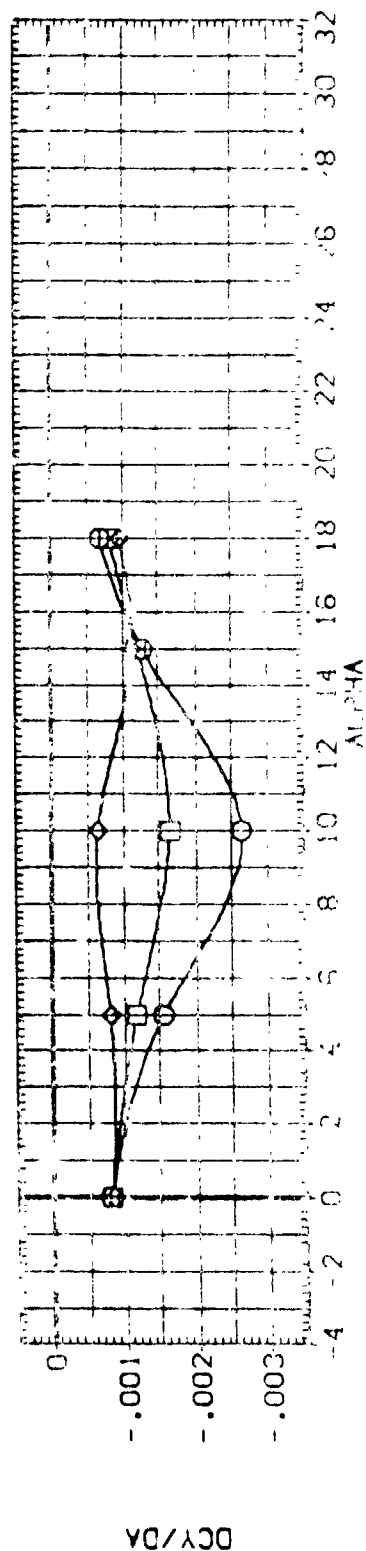
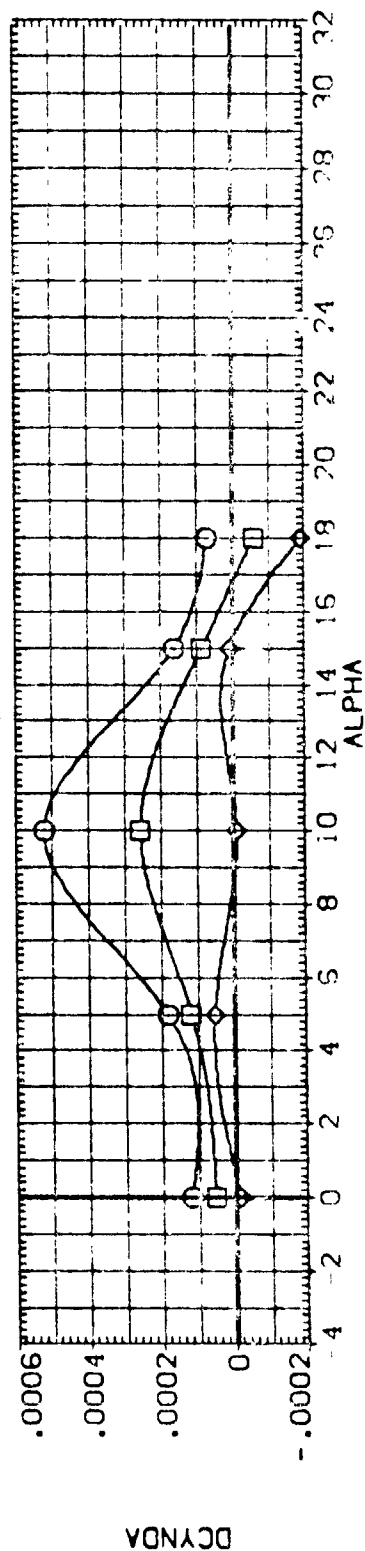
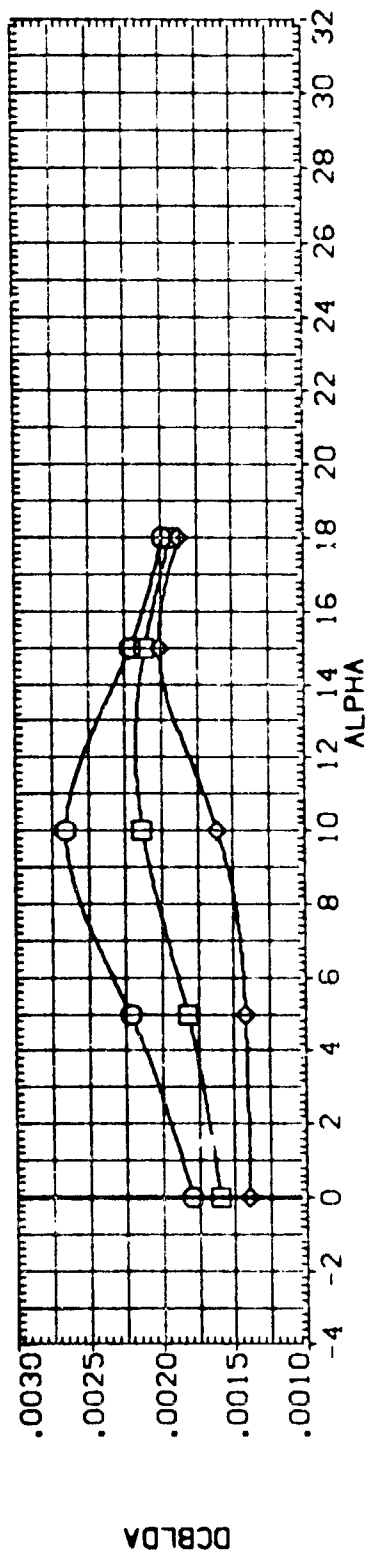


FIGURE 12. LA-48 8-FT IPT 580 R1-0858/39 098 SPL IT ELEVON

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (041003) LA-48 8-FT IPT 580 R1-0858/138 CR8 SPL IT ELEVON  
 (041008) LA-48 8-FT IPT 580 R1-0858/138 CR8 SPL IT ELEVON  
 (041009) LA-48 8-FT IPT 580 R1-0858/138 CR8 SPL IT ELEVON

ELEV LG ELEV-HI ELEV-HD  
 .000 -20.000 -20.000  
 5.000 -20.000 -20.000  
 10.000 -20.000 -20.000

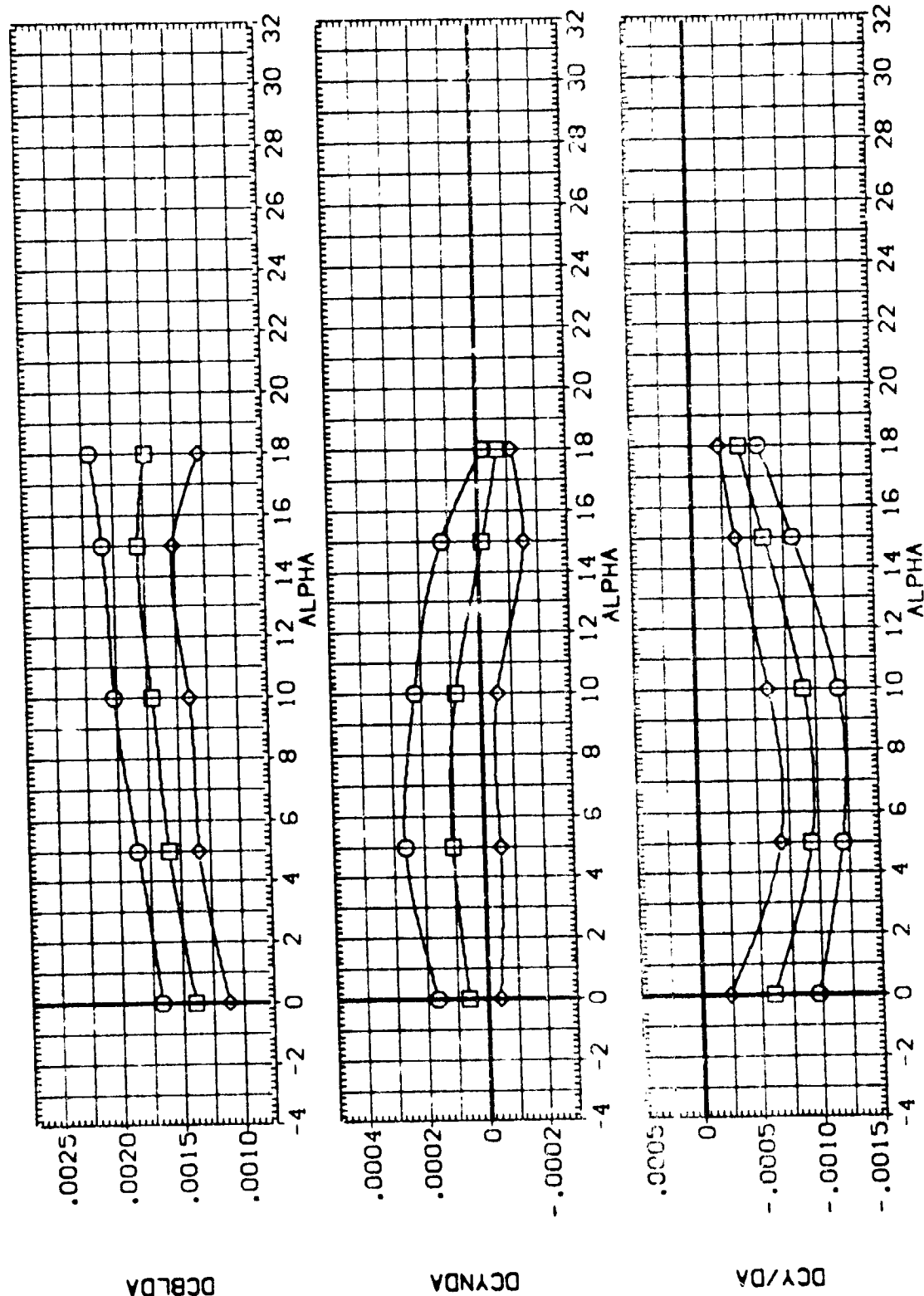


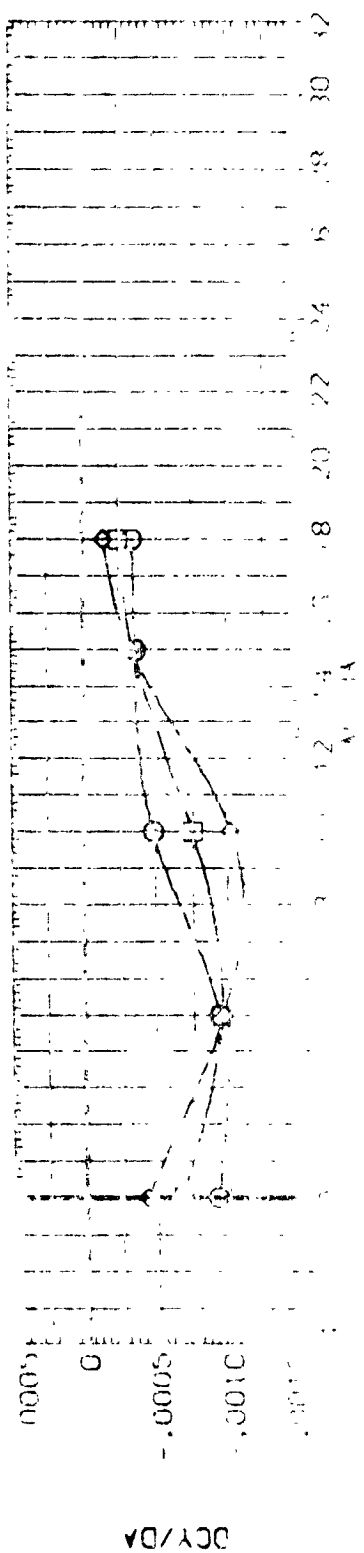
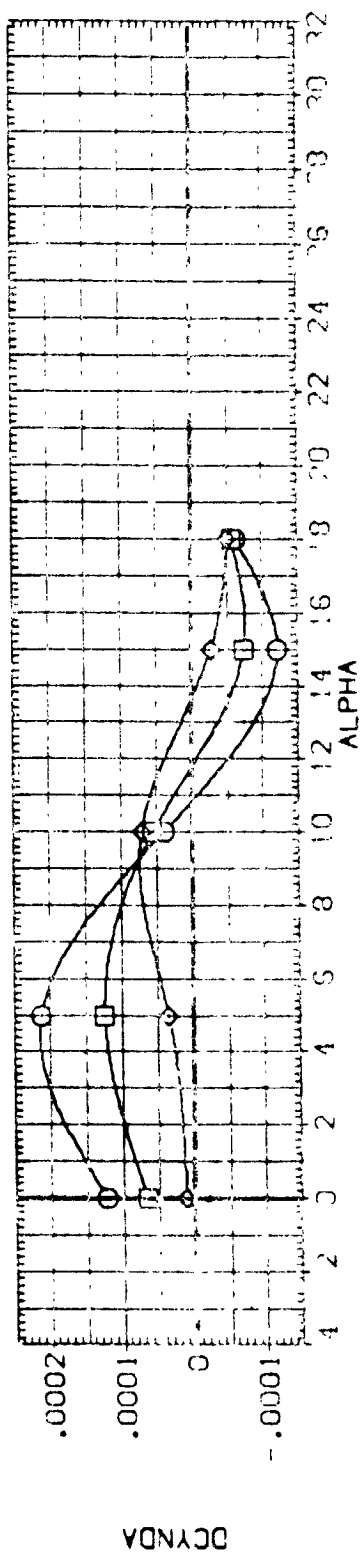
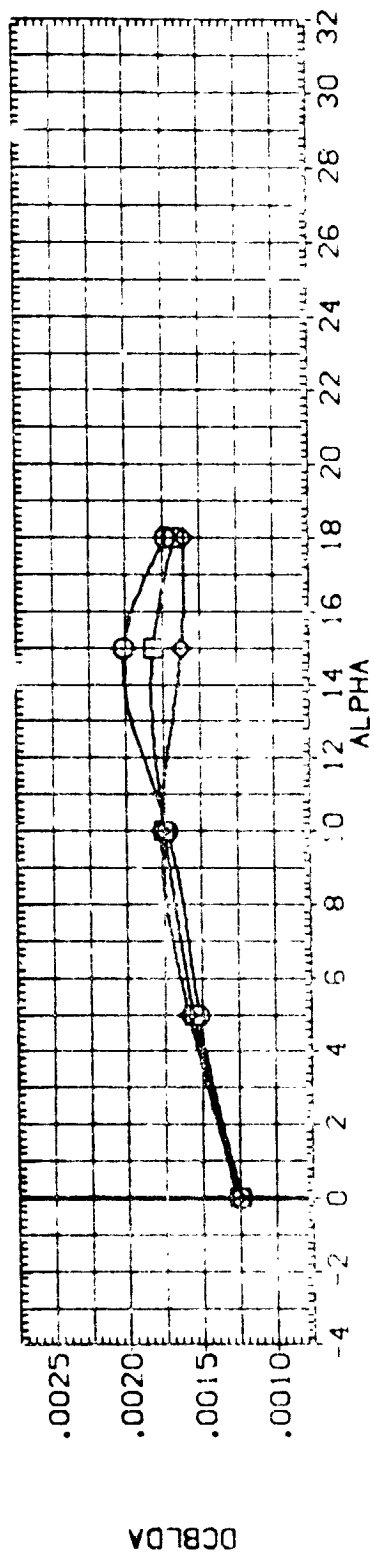
FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS (INBOARD ELEVON DEFLECTED)  
 (B) MACH = .80

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELV-L0      ELV-L1      ELV-R1      ELV-R0

(041003)      LA-18 8-FT TPT 680 RI-0898/139 078 078 SPLIT ELEVON      .000      -20.000      -20.000      .000

(041008)      LA-18 8-FT TPT 680 RI-0898/139 078 078 SPLIT ELEVON      5.000      -20.000      -20.000      -5.000

(041009)      LA-18 8-FT TPT 680 RI-0898/139 078 078 SPLIT ELEVON      10.000      -20.000      -20.000      -10.000





DATA SET SYMBOL    "3F10QAT" ON DESCRIPTION

DATA SET SYMBOL	DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(CH1003)	LA-18 8-FT "P" 580 RI-0898/139 098 SPL IT ELEVON	.000	-20.000	-20.000	.000
(CH1008)	LA-18 8-FT "P" 580 RI-0898/139 098 SPL IT ELEVON	5.000	-20.000	-20.000	-5.000
(CH1009)	LA-18 8-FT "P" 580 RI-0898/139 098 SPL IT ELEVON	10.000	-20.000	-20.000	-10.000

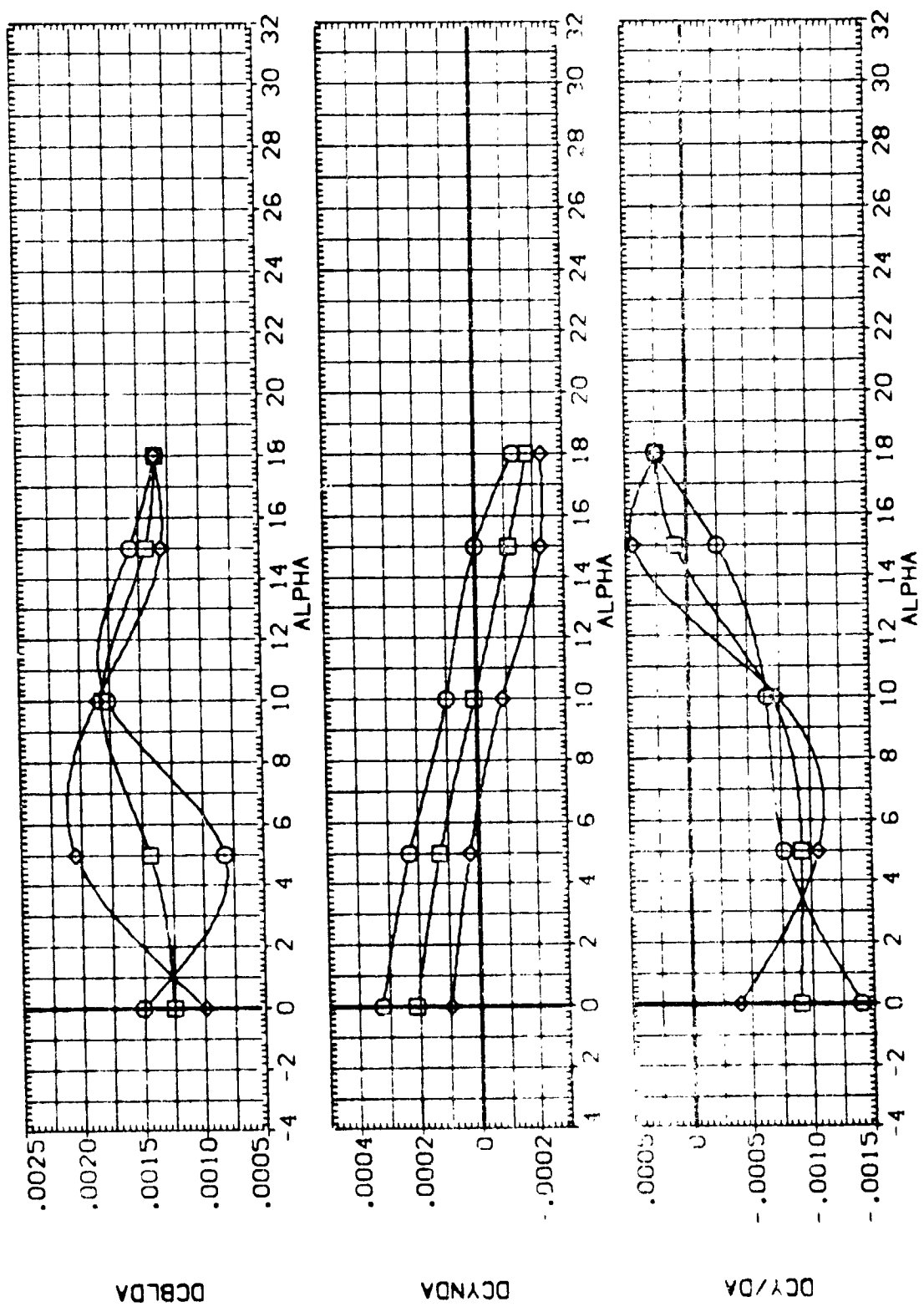


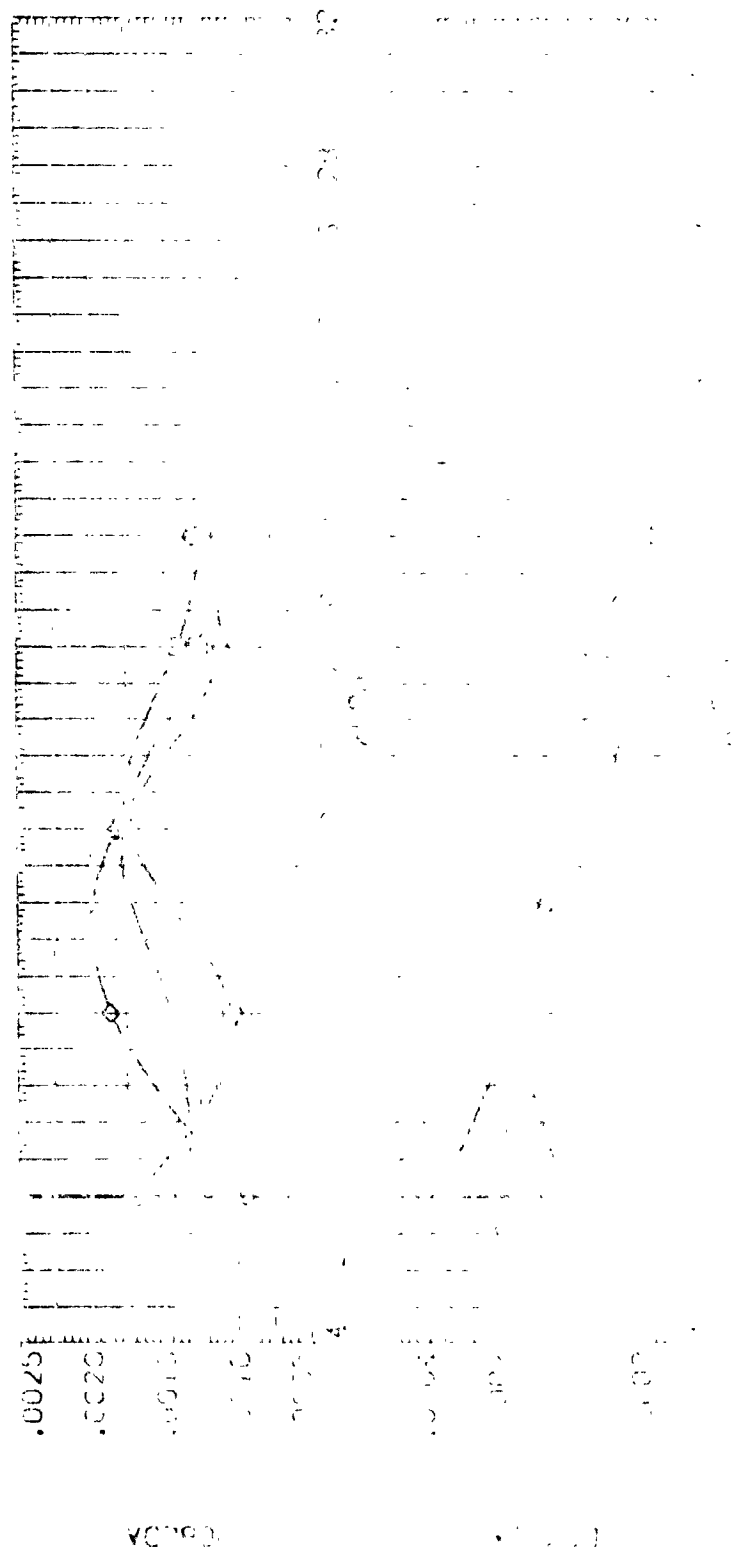
FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS (INBOARD ELEVON DEFLECTED)  
 (0)MACH = .90      PAGE 112

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-LG    ELV-LI    ELV-RI    ELV-R9

(GH1003)    LA-48 8-FT TPT 690 RI-0693/35 038 SPL IT ELEVON    .000    -20.000    -20.000    .000

(GH1008)    LA-48 8-FT TPT 690 RI-0693/35 038 SPL IT ELEVON    5.000    -20.000    -20.000    -5.000

(GH1009)    LA-48 8-FT TPT 690 RI-0693/35 038 SPL IT ELEVON    10.000    -20.000    -20.000    -10.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELV-L0      ELV-L1      ELV-R1      ELV-R0

(0-1000)      CA-48 8-FT TPT 680 RI-0898/139 ORB SPLIT ELEVON      .000      -20.000      -20.000      .000

(0-1008)      CA-48 8-FT TPT 680 RI-0898/139 ORB SPLIT ELEVON      .000      -20.000      -20.000      .000

(0-1009)      CA-48 8-FT TPT 680 RI-0898/139 ORB SPLIT ELEVON      .000      -20.000      -20.000      .000

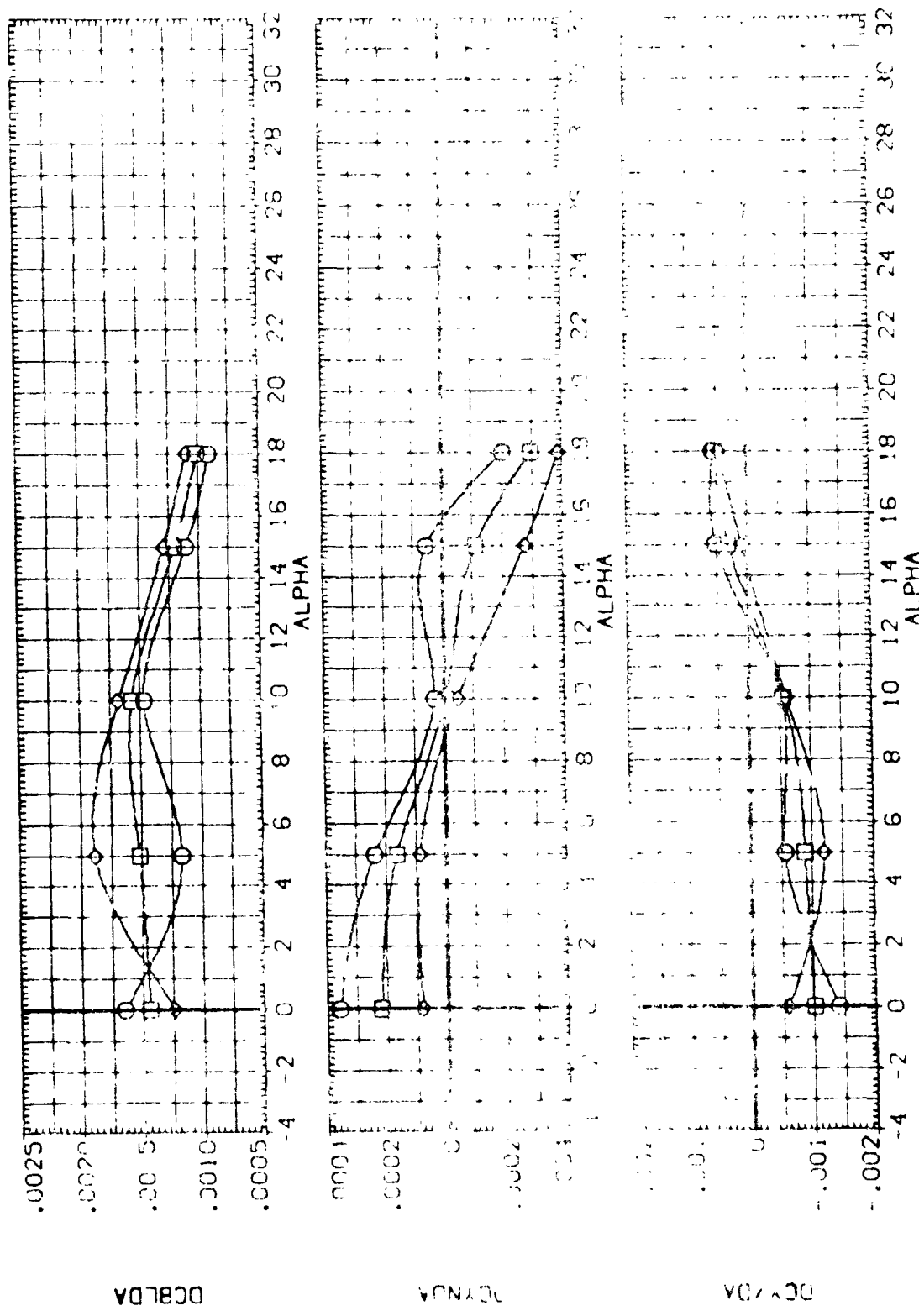


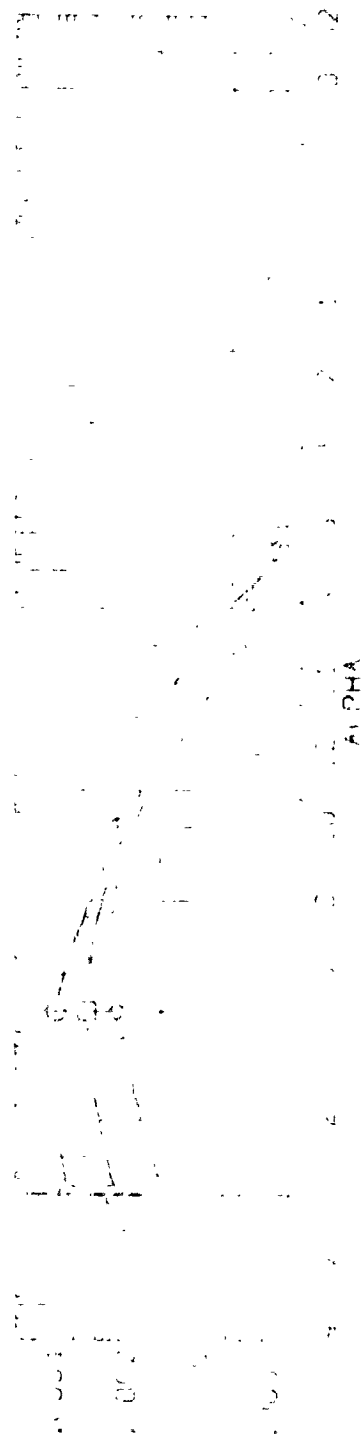
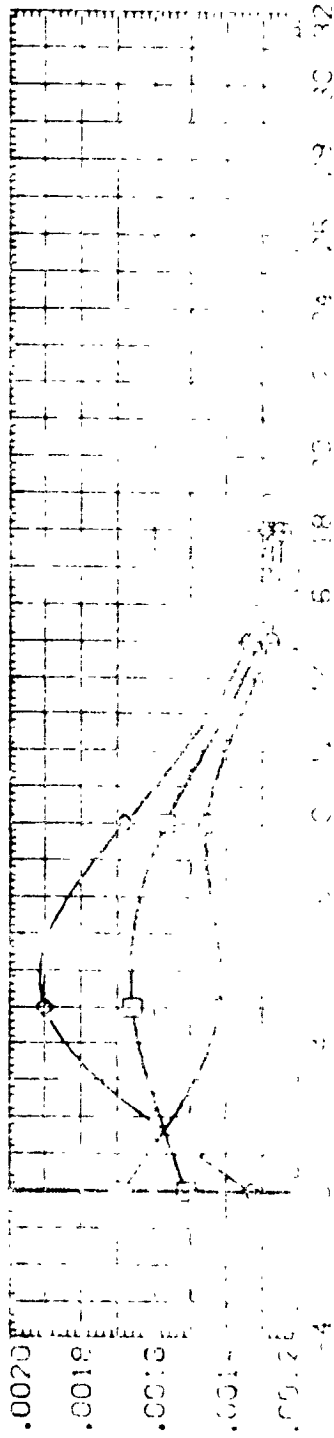
FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS(INBOARD ELEVON DEFLECTED)  
(F)MACH = .95

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELEV-L0      ELEV-L1      ELEV-R1      ELEV-R0

(GHI003)      LA-18 8-FT TPT 680 RI-0938/128      000      -20.000      -20.000      000

(GHI008)      LA-18 8-FT TPT 680 RI-0938/128      5.000      -20.000      -20.000      -5.000

(GHI009)      LA-18 8-FT TPT 680 RI-0938/128      10.000      -20.000      -20.000      -10.000



DATA SET SYMBOL: 001003  
 CONFIGURATION DESCRIPTION: LA-48 8-FT TPT 680 RI-0898/ 38 098 SPLITT ELEVON  
 LA-48 8-FT TPT 680 RI-0898/ 38 098 SPLITT ELEVON  
 LA-48 8-FT TPT 680 RI-0898/ 38 098 SPLITT ELEVON  
 LA-48 8-FT TPT 680 RI-0898/ 38 098 SPLITT ELEVON  
 ELV-L0 ELV-L1 ELV-R1 ELV-R0  
 0.000 0.000 0.000 0.000  
 5.000 5.000 5.000 5.000  
 10.000 10.000 10.000 10.000  
 15.000 15.000 15.000 15.000

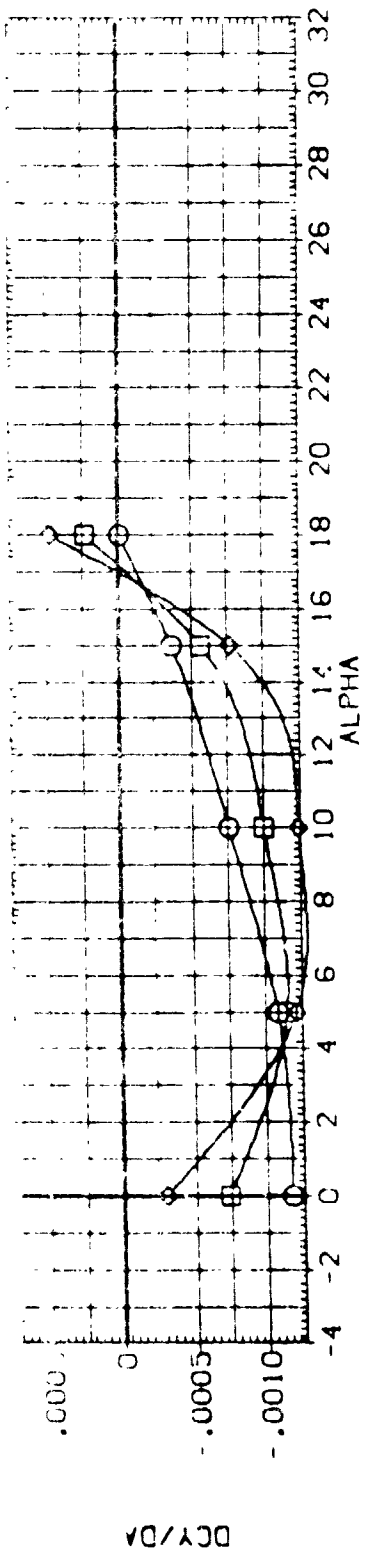
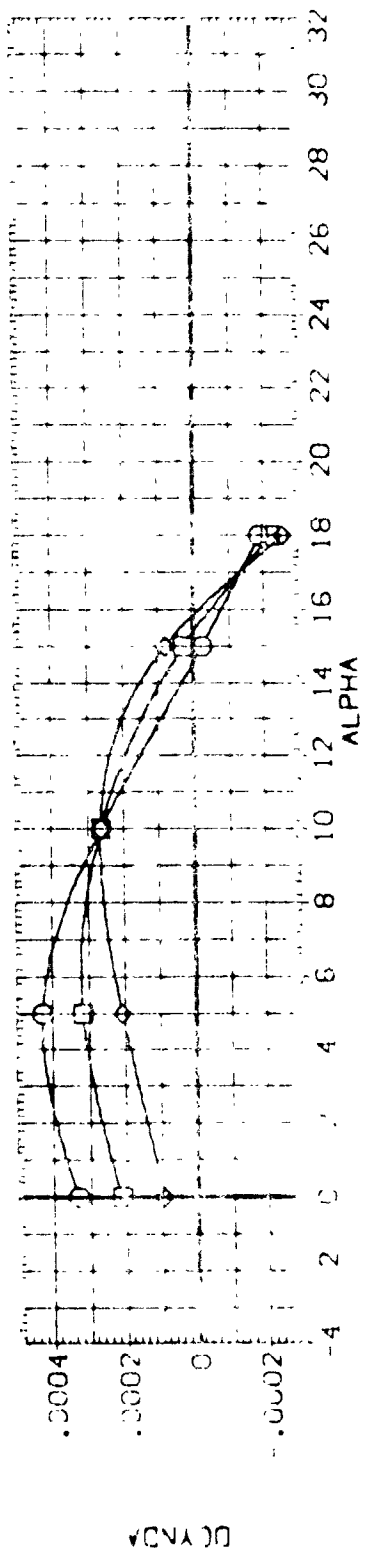
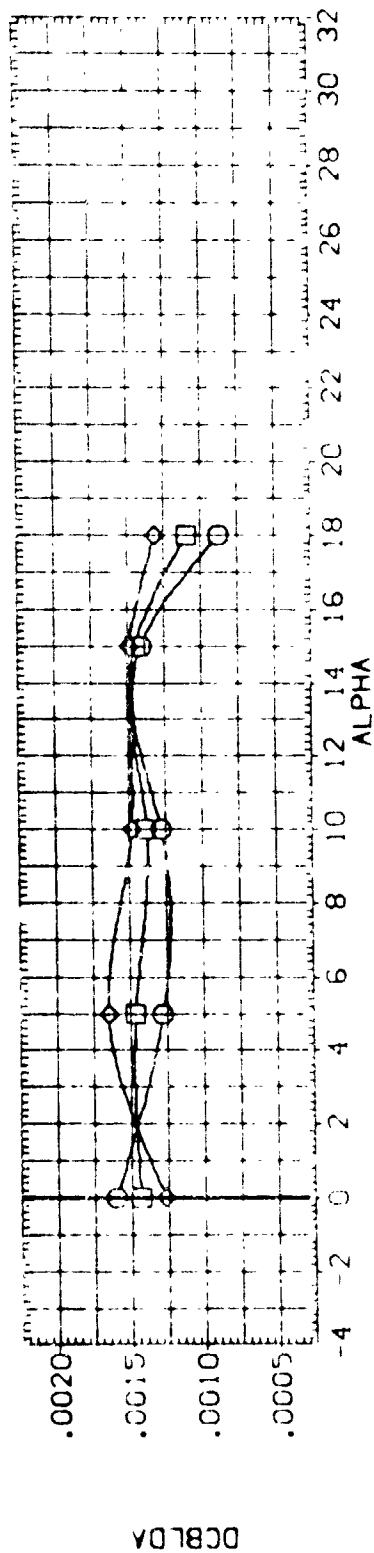


FIGURE 12. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS (INBOARD ELEVON DEFLECTED)

(M)MACH = 1.08



DATA SET SYMBOL: **Q** CONFIGURATION DESCRIPTION: LA-48 8-FT TPT 680 R1 -0898/38 ORB SPL IT ELEVON  
 (EH1012) LA-48 8-FT TPT 680 R1 -0898/35 ORB SPL IT ELEVON  
 (EH1010) LA-48 8-FT TPT 680 R1 -0898/33 ORB SPL IT ELEVON  
 (EH1011) LA-48 8-FT TPT 680 R1 -0898/33 ORB SPL IT ELEVON

ELV-L0 ELV-L1 ELV-R1 ELV-R0  
 .000 -10.000 -10.000 -20.000  
 -15.000 -20.000 -20.000 -30.000  
 -10.000 -20.000 -20.000 -30.000

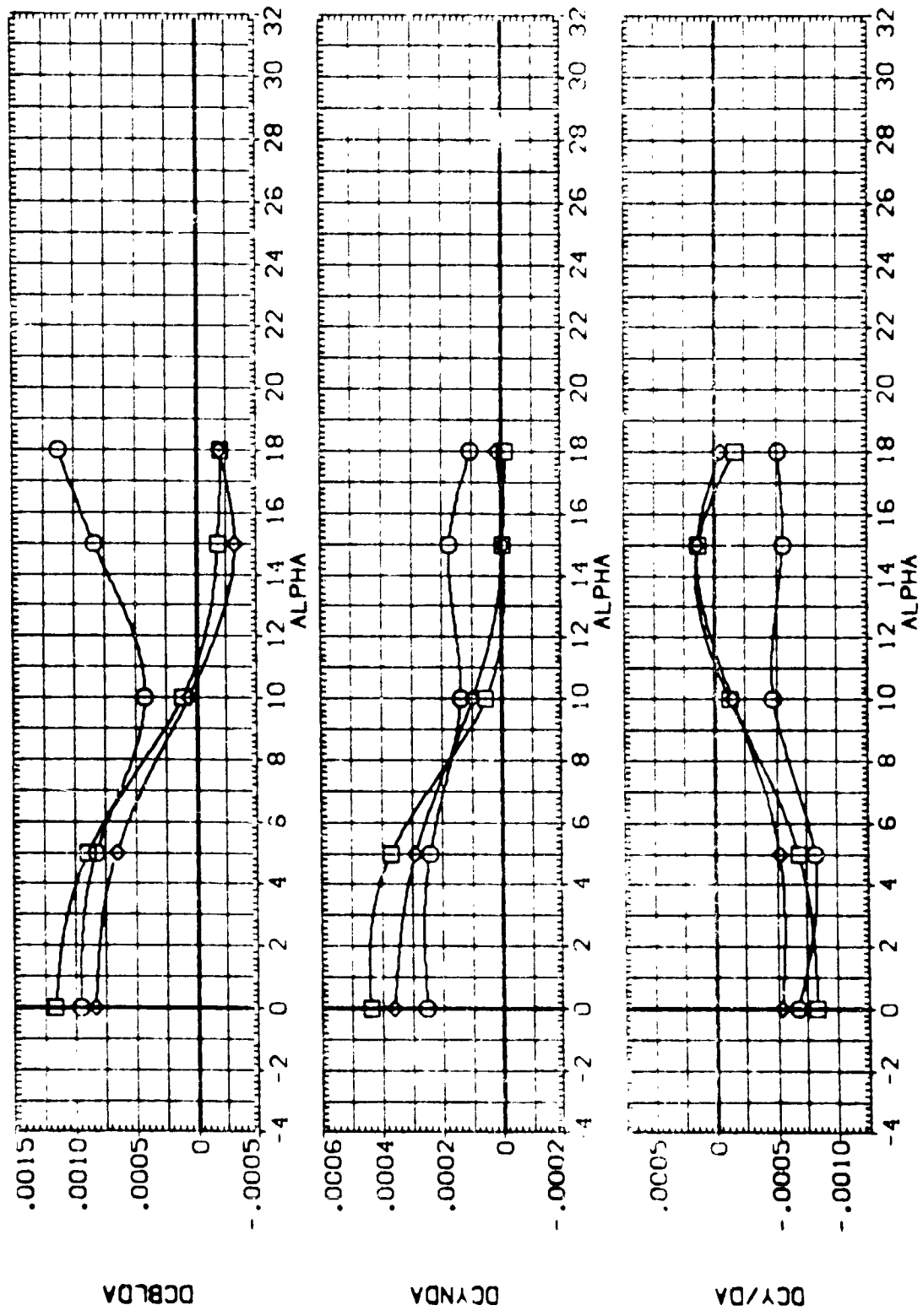


FIGURE 13. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS(FULL SPAN ELEVON DEFLEC)  
 (B)MACH = .80

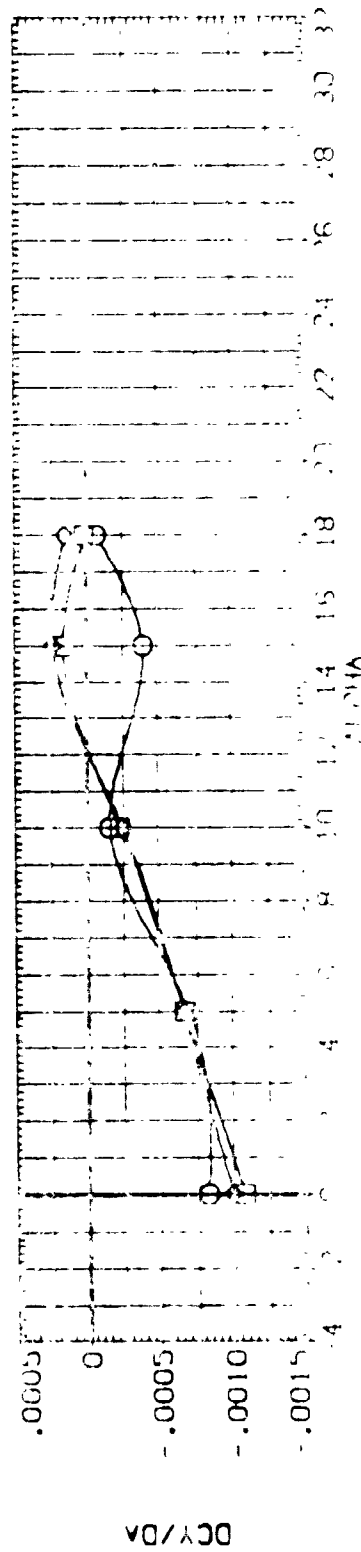
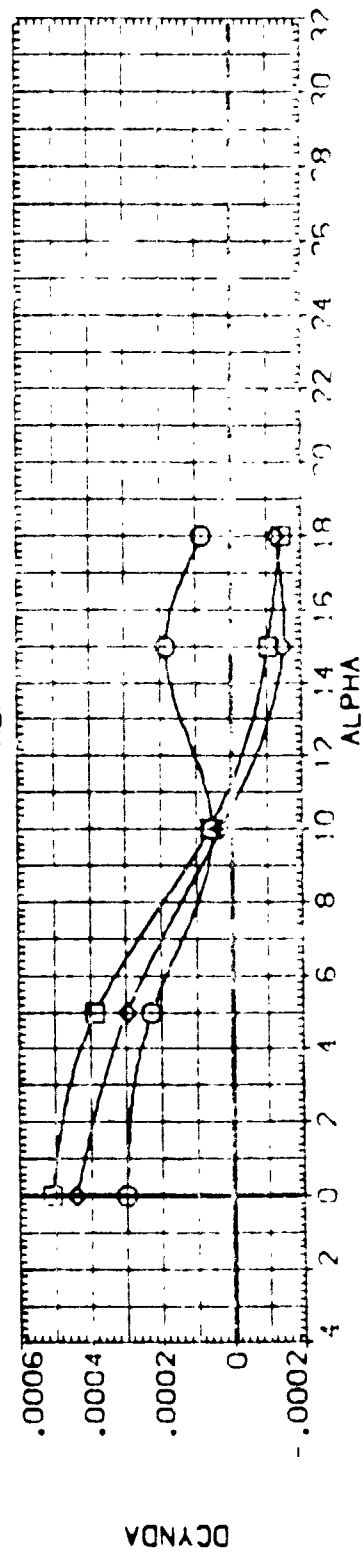
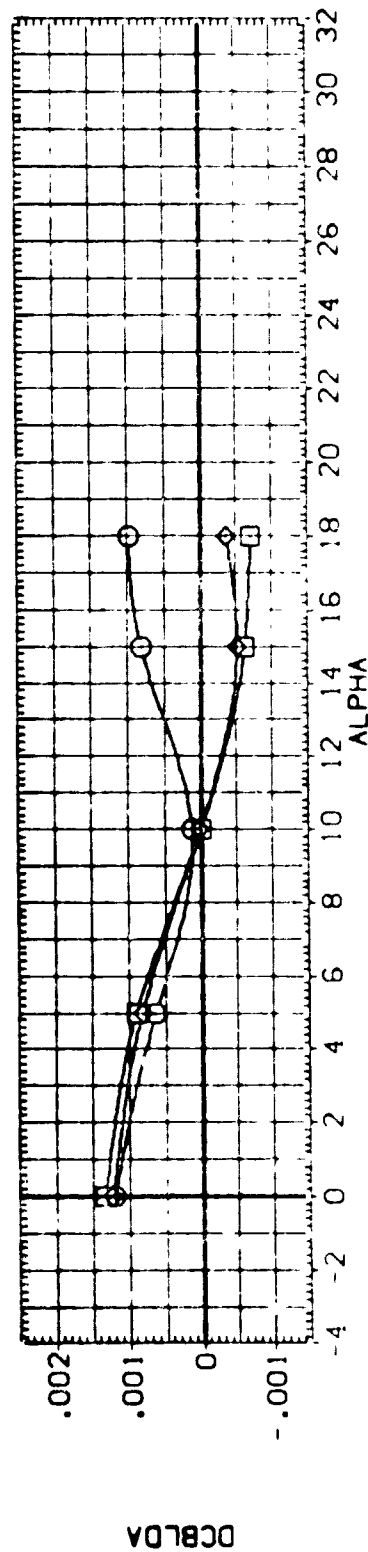


DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELV-LO      ELV-LI      ELV-RI      ELV-RO

{EM1012}      LA-18 8-FT TPT 580 RI-0838/138      083      083      083      083

{EM1010}      LA-18 8-FT TPT 580 RI-0838/138      083      083      083      083

{EM1011}      LA-18 8-FT TPT 580 RI-0838/138      083      083      083      083





DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (EM1012) LA-48 8-FT IPT 880 RI -0898/139 088 SPL T ELEVON  
 (EM1010) LA-48 8-FT IPT 880 RI -0898/139 088 SPL T ELEVON  
 (EM1011) LA-48 8-FT IPT 880 RI -0898/139 088 SPL T ELEVON

ELV-LO ELV-LI ELV-RI ELV-RO  
 .000 -10.000 -10.000 -20.000  
 -15.000 -20.000 -20.000 -30.000  
 -10.000 -20.000 -20.000 -30.000

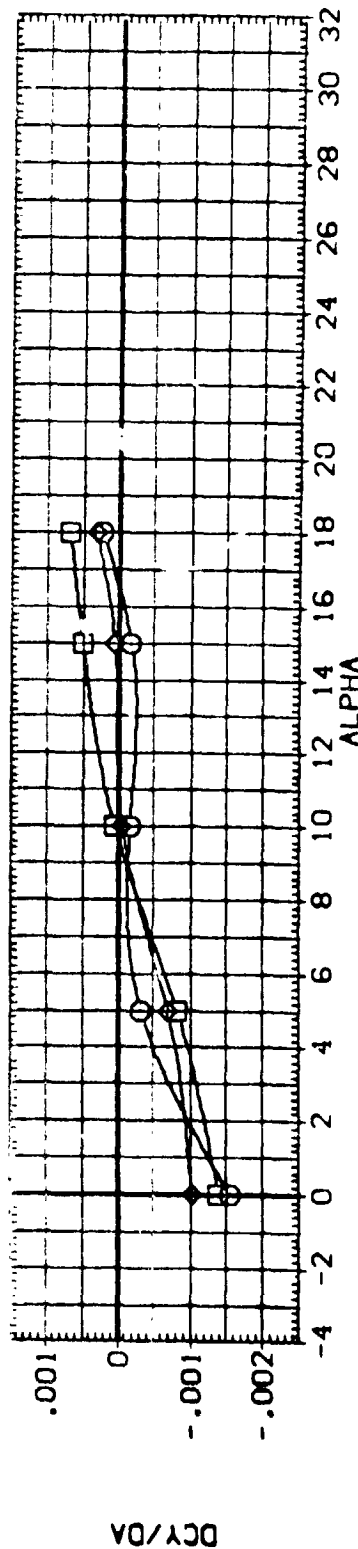
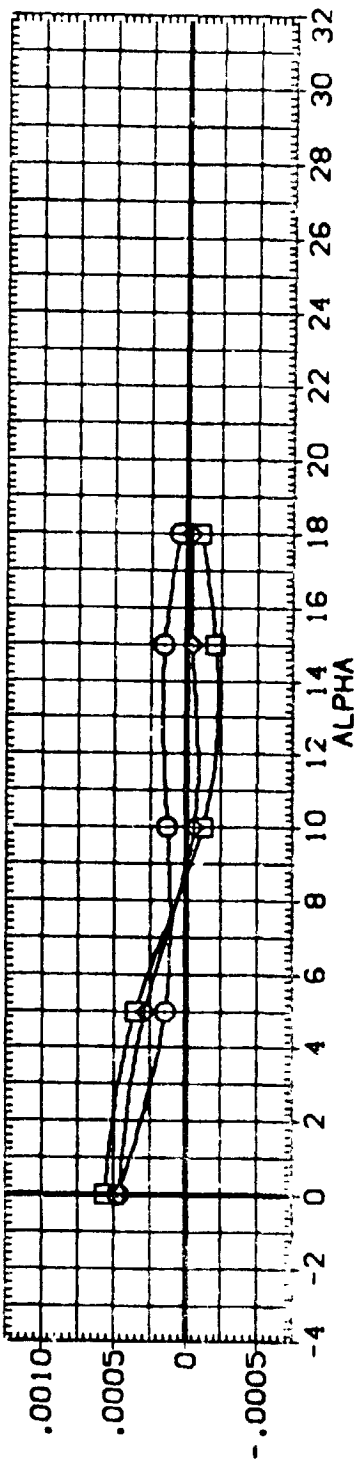
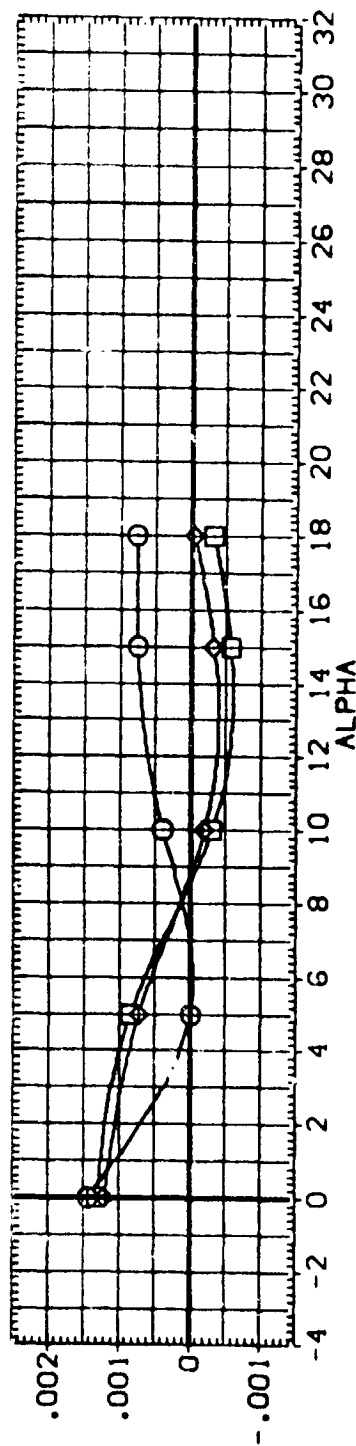


FIGURE 13. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS(FULL SPAN ELEVON DEFLEC)  
 (O)MACH = .90



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-LO    ELV-LI    ELV-RI    ELV-RO

(EH1012)    LA-48 8-FT TPT 680 RI-0698/139 078 SPL IT ELEVON    .000    -10.000    -10.000    -20.000

(EH1010)    LA-48 8-FT TPT 680 RI-0698/139 078 SPL IT ELEVON    -15.000    -20.000    -20.000    -25.000

(EH1011)    LA-48 8-FT TPT 680 RI-0698/139 078 SPL IT ELEVON    -10.000    -20.000    -20.000    -30.000

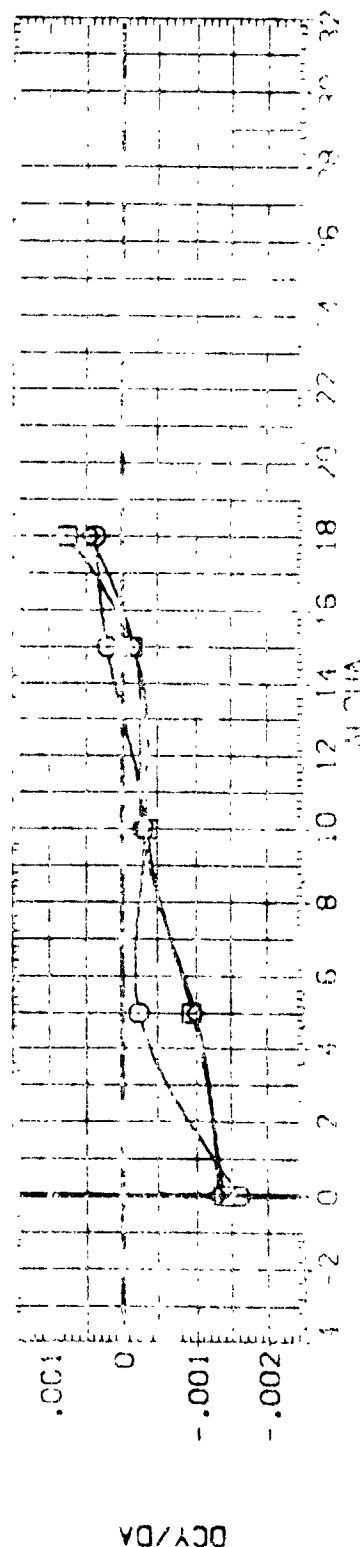
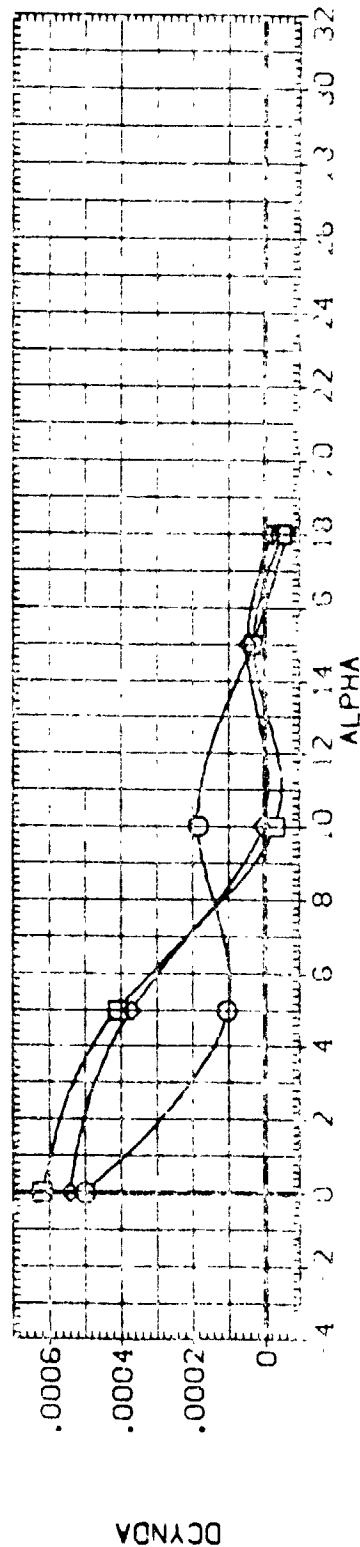
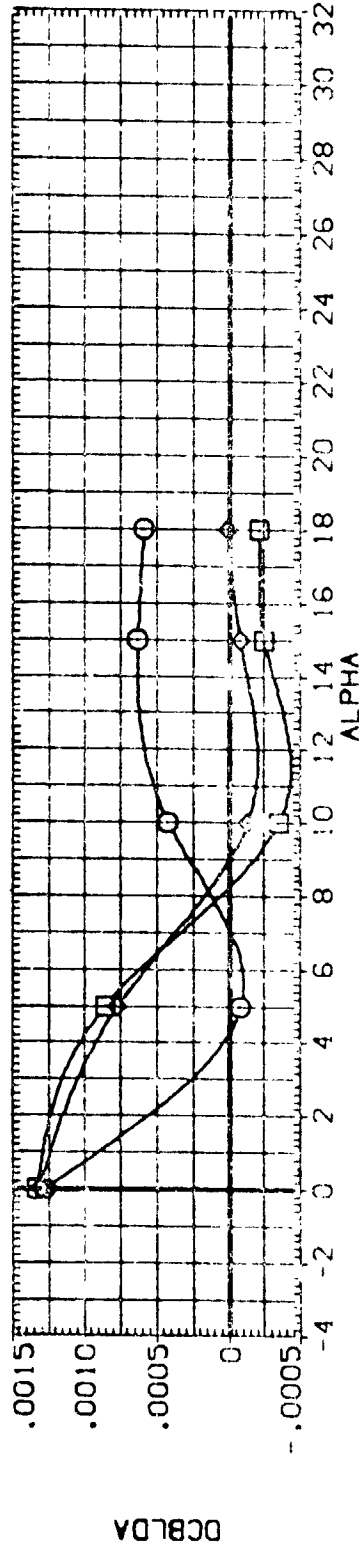


Figure 10-10

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(EH1012)	LA-48 8-FT IPT 680 RI -0858/138	048	SPLIT ELEVON	ELV-L0	ELV-L1	ELV-R1	ELV-R0
(EH1010)	LA-48 8-FT IPT 680 RI -0858/138	048	SPLIT ELEVON	.000	-10.000	-10.000	-20.000
(EH1011)	LA-48 8-FT IPT 680 RI -0858/138	048	SPLIT ELEVON	-15.000	-20.000	-20.000	-30.000

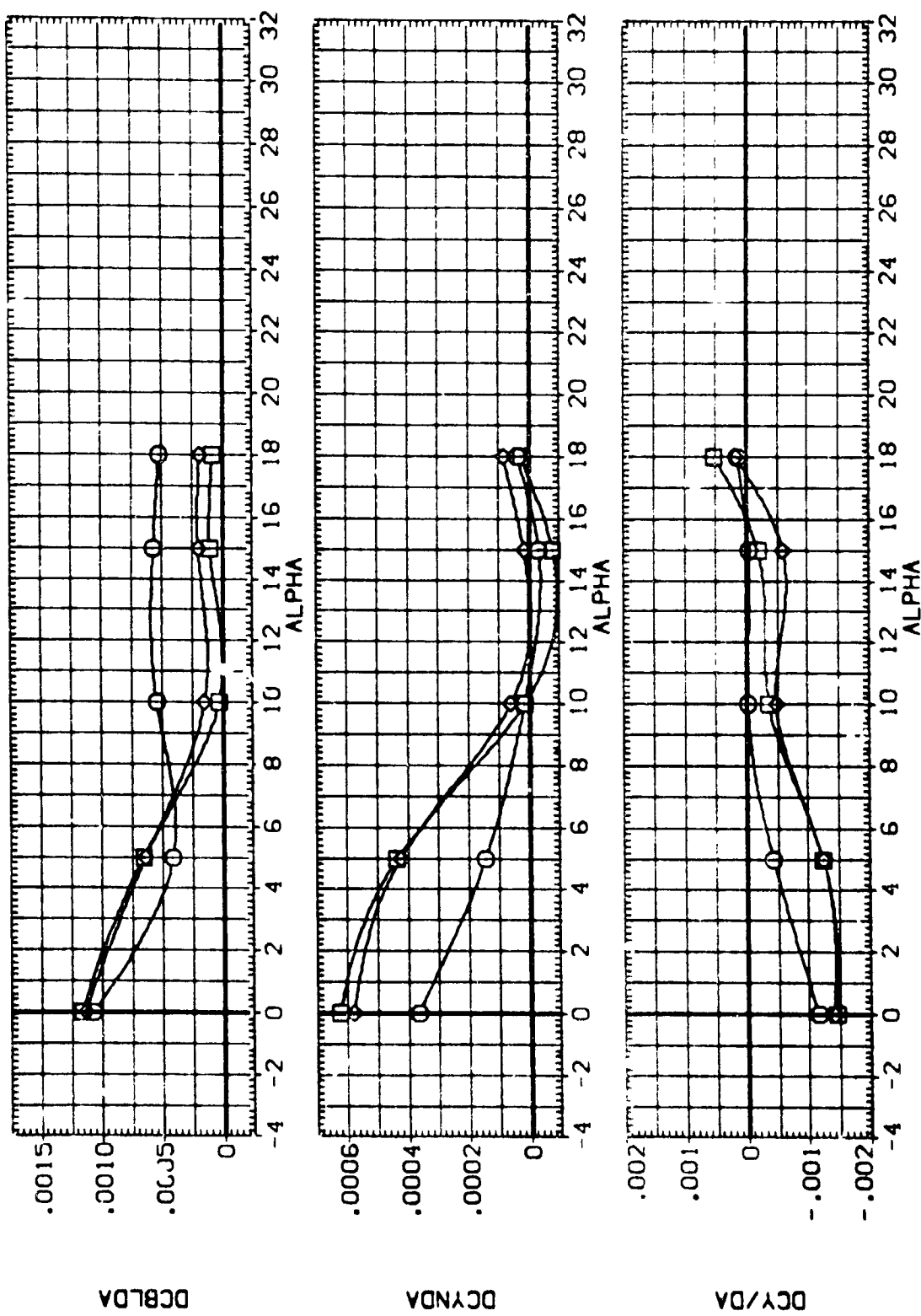


FIGURE 13. OUTBOARD AILERON ROLL CONTROL EFFECTIVENESS(FULL SPAN ELEVON DEFLEC)  
(F)MACH = .95

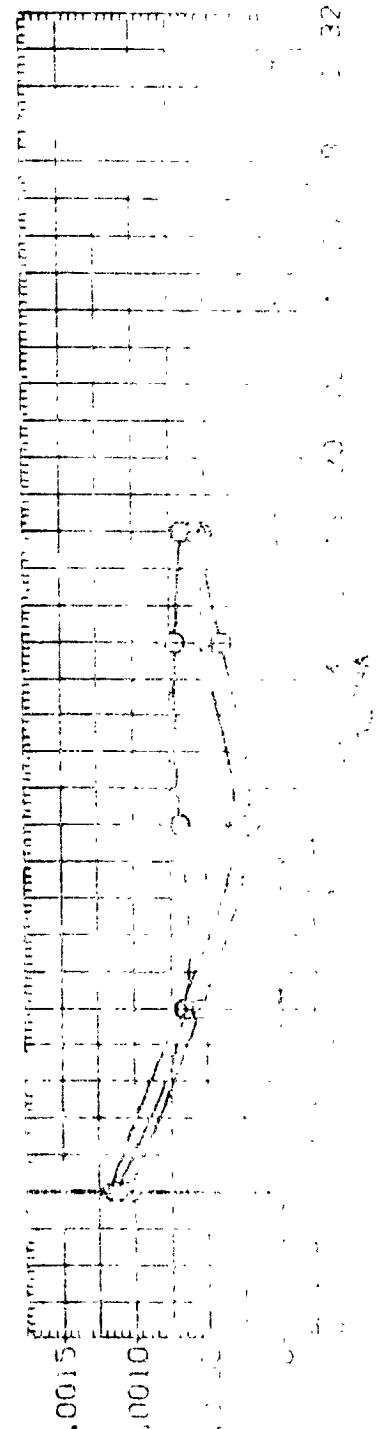


DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0

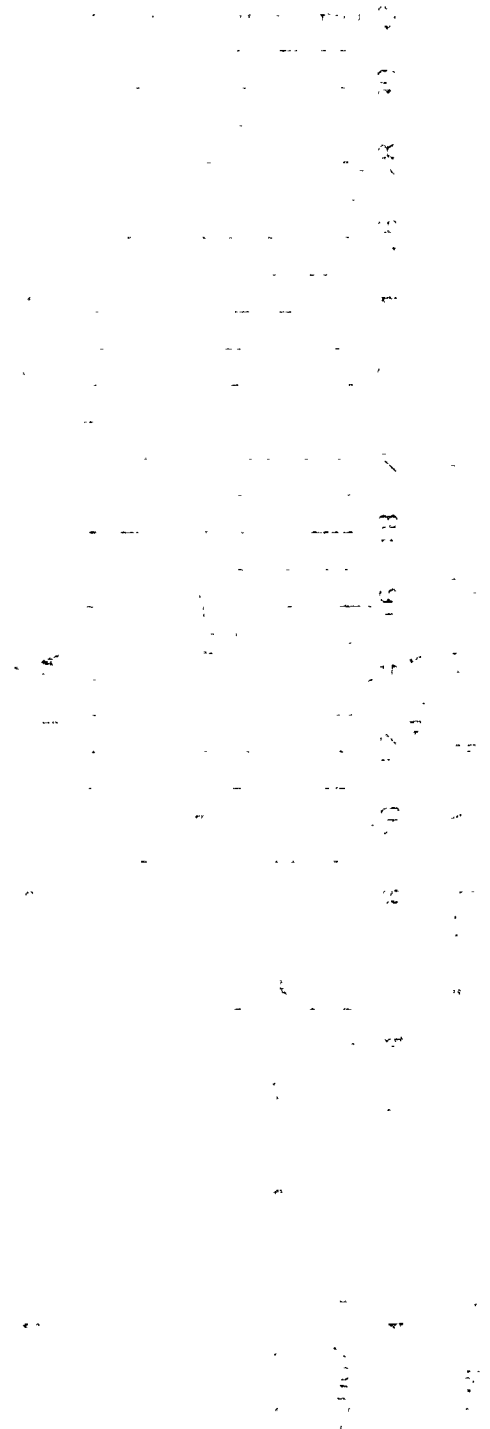
(E41012)    Q    LA-48 2-T 1PT 250 RI-0856/139 038 SALT ELEVON    -10.000    -10.000    -20.000

(E41010)    Q    LA-48 2-T 1PT 250 RI-0856/139 038 SALT ELEVON    -15.000    -20.000    -25.000

(E41011)    Q    LA-48 2-T 1PT 250 RI-0856/139 038 SALT ELEVON    -10.000    -20.000    -30.000



008100



008100

100

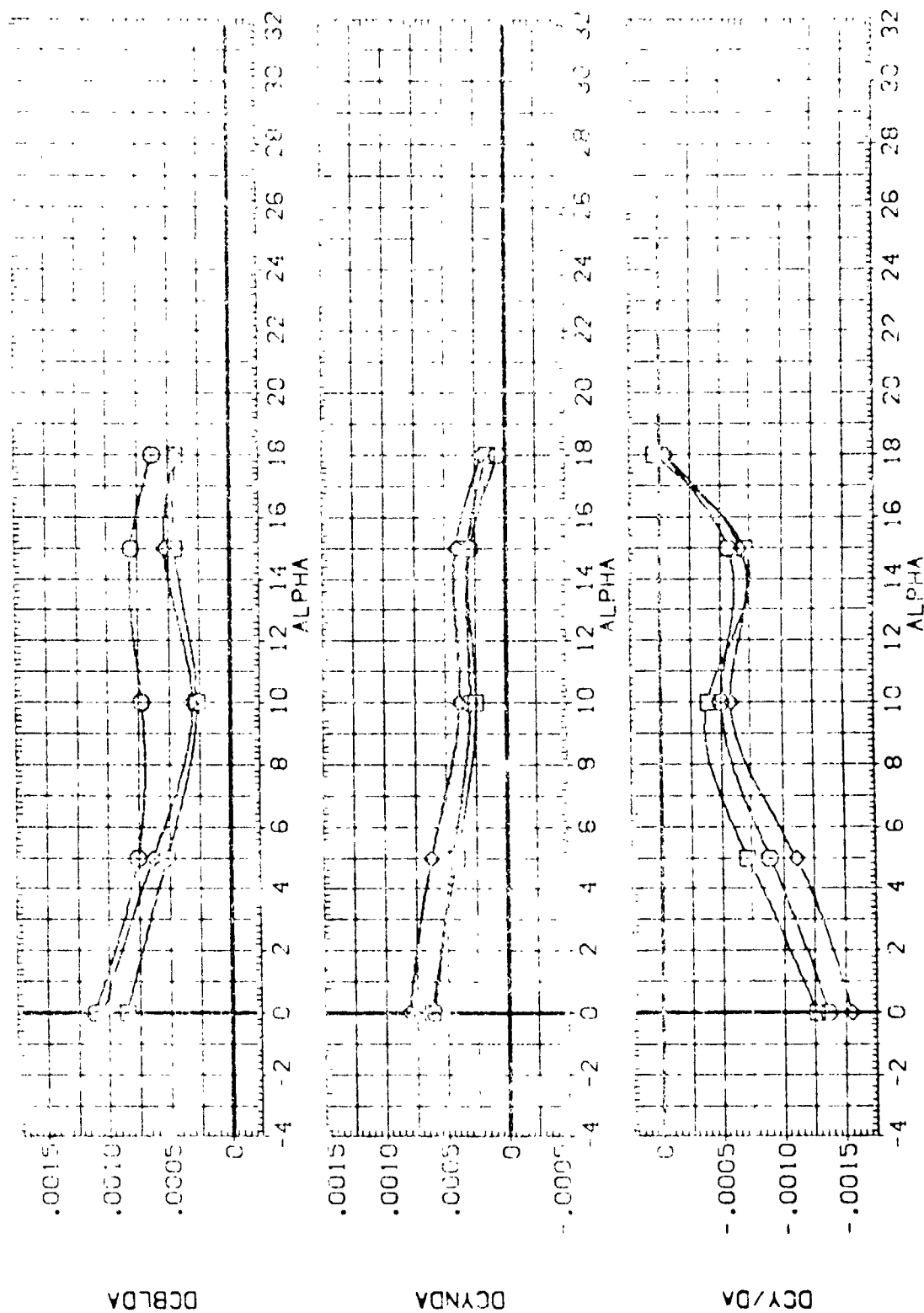


FIGURE 13. OUTBOARD AILEON ROLL CONTROL EFFECTIVENESS(FULL SPAN ELEVON DEFLECTED)  
(H)MACH = 1.08 PAGE 104

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELV-LO ELV-LI ELV-RI ELV-RO  
 (JH1005) LA-48 8-FT IPT 580 RI-0698/135 068 SPL IT ELEVON -10.000 -10.000 -10.000  
 (JH1006) LA-48 8-FT IPT 580 RI-0698/135 068 SPL IT ELE SN -20.000 -20.000 -20.000

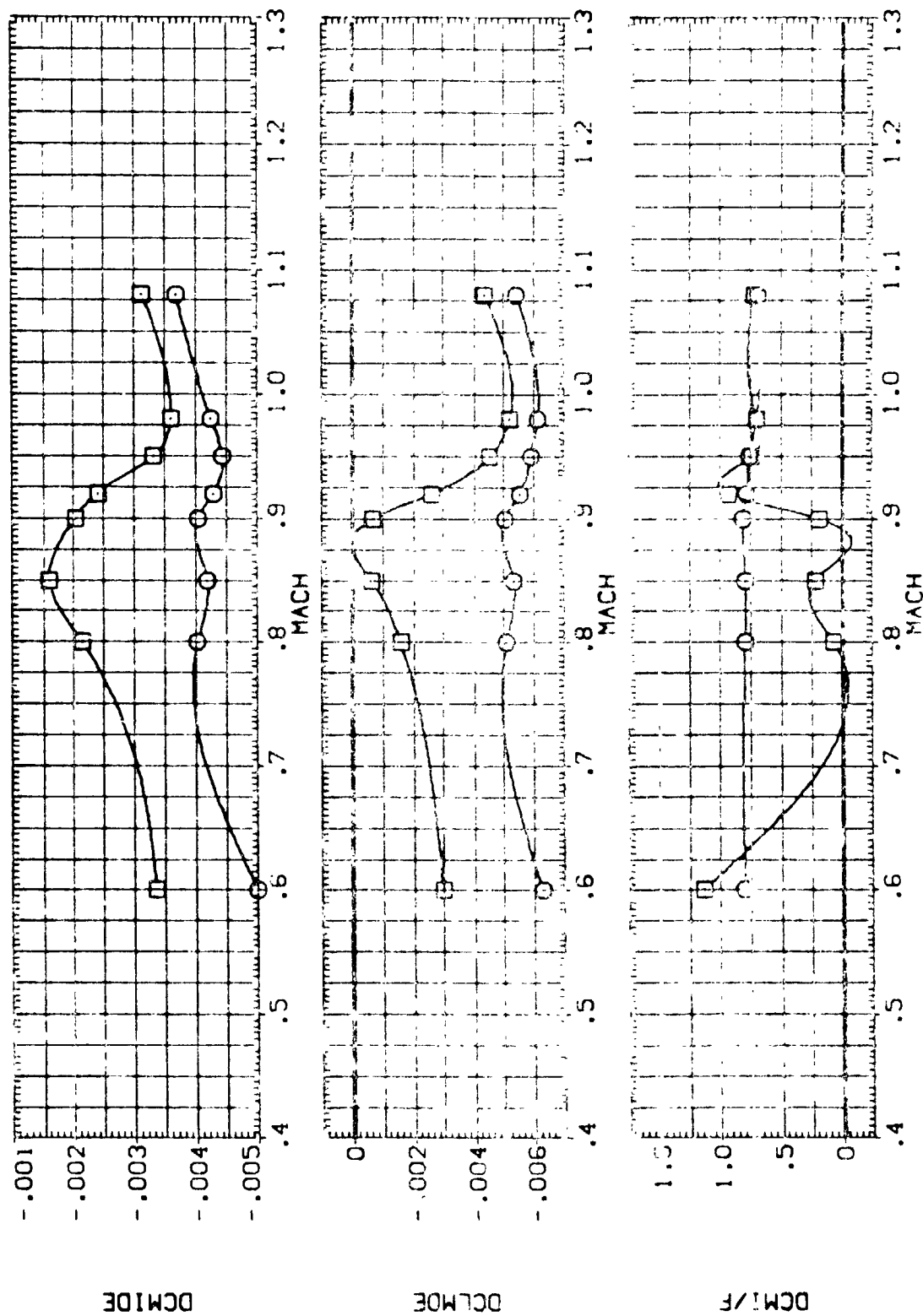


FIGURE 14. COMPARISON OF CONTROL EFFECTIVENESS FOR FULL SPAN AND INBD. ELEVON

APPENDIX  
TABULATED SOURCE DATA

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Plotted data tabulations are available from DMS  
on request.

LA48 TABULATED SOURCE DATA

LA-48 8-FT TWT 680 RI-0998/139 ORB SPLIT ELEVON

PAGE 1

(RH1001)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-L1 = .000 ELV-R1 = .000  
 ELV-RO = .000 BDFAP = .000  
 SPOBRK = 25.000 AILRON = .000  
 ELEVTR = .000

RUN NO. 71/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.598	-2.020	.00259	-.06035	.06376	-.00471	-.00306	.00076	-.00609	-.05426	.06597	-.88446
.599	.077	.00314	.03440	.06329	-.00497	-.00296	.00026	-.00427	.03431	.06533	.52319
.601	.777	.00478	.06795	.06516	-.00583	-.00309	.00013	-.00732	.06706	.06608	1.01491
.600	2.314	.00395	.14276	.06295	-.00719	-.00297	.00000	-.00951	.14011	.06957	2.04340
.598	4.291	.00669	.24149	.05741	-.00997	-.00320	-.00039	-.00963	.23652	.07531	3.14044
.600	7.353	.00360	.39864	.04329	-.01348	-.00432	-.00077	-.00597	.38992	.09396	4.14904
.599	9.794	.00520	.47750	.03527	-.01514	-.00476	-.00103	-.00453	.46834	.10904	4.28472
.598	10.592	.00383	.57933	.04554	-.02796	-.00209	.00025	-.00642	.56033	.15101	5.71049
.599	12.764	.00420	.69990	.05013	-.03747	-.00337	.00109	-.00354	.67133	.20353	3.29945
.600	14.849	.00354	.82154	.05319	-.04722	-.00337	.00109	-.00207	.78047	.26194	2.97963
.597	16.927	.00467	.93491	.06071	-.05929	-.00333	-.00107	-.00392	.87673	.33729	2.65453
.598	19.171	.00645	1.07367	.06901	-.06302	-.00191	-.00126	-.00619	.99442	.40926	2.42091
.599	21.153	.00729	1.19325	.07706	-.06111	-.00182	-.00133	-.00739	1.09260	.49105	2.25051
.599	22.038	.00746	1.22547	.07713	-.05776	-.00232	-.00115	-.00923	1.11449	.51279	2.17342

RUN NO. 61/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.600	-2.060	.00094	-.07121	.06685	-.00167	-.00306	.00126	-.00482	-.06876	.06937	-.99122
.601	.072	.00320	.03378	.06948	-.00275	-.00401	.00093	-.00756	.03370	.06852	.49190
.799	2.039	.00640	.13702	.06724	-.00624	-.00426	.00028	-.00709	.13454	.07207	1.96676
.600	4.317	.00296	.26741	.06409	-.01295	-.00464	.00003	-.00679	.20495	.06351	3.05170
.600	6.637	.00621	.37544	.06669	-.01975	-.00412	.00016	-.00655	.25621	.10975	3.33699
.600	8.752	.00515	.49272	.06940	-.02544	-.00515	-.00044	-.00675	.46654	.14204	3.29447
.799	10.765	.00634	.57047	.07432	-.03065	-.00519	-.00069	-.00646	.54690	.17984	3.04097
.799	12.832	.00690	.69992	.07022	-.04056	-.00319	.00151	-.00226	.65402	.23023	2.94071
.600	15.190	.00933	.83966	.04337	-.00390	-.00347	.00167	-.00340	.79049	.30047	2.62412
.798	17.437	.01319	.97459	.06854	-.00798	-.00141	.00135	-.00944	.90324	.37697	2.39669
.799	19.906	.01559	1.09900	.09174	-.00849	-.00164	-.00191	-.00140	.96759	.44009	2.19061
.799	21.680	.01935	1.13279	.09484	-.00272	-.00303	-.00393	-.00052	1.01790	.50626	2.01042
.799	22.546	.01772	1.13797	.09593	-.00393	-.00482	-.00495	-.00244	1.01415	.52490	1.93246

ORIGINAL PAGE IS  
 OF POOR QUALITY



LA48 TABULATED SOURCE DATA

PAGE 2

LA-48 9-PT TPT 680 RI-0898/139 CR8 SPLIT ELEVON

(RH1001)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = .000 ELV-RI = .000  
ELV-RO = .000 BDFLAP = .000  
SPOBRK = 25.000 AIRCON = .000  
ELEVTR = .000

WACH	ALPHA	BETA	CN	CA	CLM	COL	CYN	CY	CL	CD	L/D
.890	-1.975	.00408	-.04882	.07233	-.01413	-.00421	.00096	-.00659	-.04010	.07396	-.94221
.890	.204	.00670	.00882	.07430	-.01828	-.00482	.00087	-.00611	.07043	.07475	.93044
.891	2.403	.00932	.19310	.07433	-.02702	-.00590	-.00011	-.00631	.19181	.08245	2.32837
.890	4.239	.00998	.28136	.07577	-.02835	-.00477	.00001	-.00611	.27496	.09646	2.89551
.890	6.549	.00977	.39003	.07942	-.03394	-.00488	-.00003	-.00643	.37842	.12339	3.06684
.890	8.790	.00908	.50139	.08296	-.04204	-.00706	-.00039	-.00566	.48293	.19827	3.05123
.849	10.878	.01110	.60420	.08780	-.05049	-.00315	-.00135	-.00623	.57678	.20024	2.88044
.890	12.876	.01215	.71280	.09231	-.06374	-.00318	-.00243	-.00603	.67425	.24903	2.70730
.849	15.246	.01280	.86314	.09636	-.07761	-.00430	-.00124	-.00612	.80743	.31994	2.52371
.890	17.412	.01459	.96932	.10015	-.08392	-.00492	-.00156	-.00621	.89513	.38568	2.32084
.890	19.613	.01946	1.06187	.10329	-.08103	-.00342	-.00235	-.00609	.96540	.45366	2.12870
.890	21.642	.02227	1.13943	.10686	-.07028	-.00462	-.00371	-.00621	1.01879	.51921	1.96220
.890	22.536	.02061	1.13116	.10713	-.04847	-.00482	-.00557	-.00631	1.00373	.53248	1.88501

RUN NO. 51/ 0

WACH	ALPHA	BETA	CN	CA	CLM	COL	CYN	CY	CL	CD	L/D
.900	-1.946	.00468	-.04318	.08345	-.01737	-.00283	.00147	-.00639	-.04026	.08490	-.47423
.901	.068	.00795	.07335	.08575	-.02336	-.00241	.00147	-.01119	.07043	.08584	.82074
.901	4.398	.01133	.26874	.08811	-.01970	-.00447	.00021	-.01034	.26119	.10846	2.40823
.900	6.546	.01092	.38191	.09151	-.03026	-.00572	-.00030	-.00848	.36910	.13346	2.76575
.901	8.609	.01049	.48753	.09570	-.04426	-.00641	-.00073	-.00721	.46781	.16690	2.80290
.900	10.879	.01096	.62307	.09708	-.06230	-.00666	-.00074	-.00700	.59355	.21293	2.78758
.900	13.030	.01320	.74336	.10239	-.07828	-.00449	-.00270	-.00521	.70115	.26736	2.62235
.999	15.209	.01981	.87614	.10664	-.09490	-.00555	-.00129	-.01013	.81748	.33275	2.45670
.999	17.383	.01683	.99797	.10962	-.10398	-.00520	-.00102	-.01201	.91296	.40068	2.27833
.999	19.548	.02015	1.08993	.11239	-.10311	-.00463	-.00134	-.01365	.98941	.47056	2.10261
.999	21.665	.02405	1.15313	.11582	-.08863	-.00459	-.00349	-.01164	1.02966	.53609	1.91783
.999	22.615	.02391	1.16985	.12040	-.07489	-.00685	-.00407	-.00981	1.02991	.59846	1.84091

RUN NO. 41/ 0

LA46 TABULATED SOURCE DATA

LA-46 6-PT TPT 640 RI-0495/139 CR6 SPLIT ELEVON

(RM1001)

PAGE 3

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 SDFLAP = .000  
 SPOERK = 29.000 AIRLON = .000  
 ELEVTR = .000

RUN NO. 31/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.920	-2.094	.00997	-.04994	.09219	-.01402	.00114	.00219	-.01149	-.04654	.09395	-.49534
.921	.042	.00953	.06903	.09349	-.02279	.00066	.00222	-.01463	.06492	.09358	.72099
.920	2.259	.00992	.16271	.09431	-.02395	-.00197	.00139	-.01243	.17445	.10144	1.76316
.920	4.426	.01063	.27004	.09485	-.02201	-.00482	.00027	-.00971	.26993	.11603	2.32630
.920	6.593	.01291	.39798	.09739	-.03659	-.00436	-.00047	-.00943	.34419	.14234	2.69444
.919	8.744	.01148	.51119	.09964	-.05324	-.00609	-.00046	-.00934	.49009	.17824	2.74082
.920	10.906	.01143	.63695	.10249	-.07127	-.00590	-.00069	-.00799	.60594	.22154	2.73532
.919	13.044	.01666	.76515	.10696	-.08423	-.00465	-.00312	-.00493	.72107	.27740	2.59939
.919	15.243	.01607	.90691	.11133	-.10792	-.00524	-.00122	-.01027	.84540	.34642	2.44039
.914	17.421	.01868	1.01920	.11371	-.11954	-.00507	-.00171	-.01125	.93840	.41364	2.26466
.920	19.596	.02109	1.12040	.11697	-.11940	-.00474	-.00171	-.01355	1.01636	.44574	2.09222
.919	21.706	.02669	1.16920	.12359	-.09935	-.00333	-.00224	-.01716	1.34099	.54725	1.90149
.920	22.615	.02410	1.14419	.12641	-.04911	-.00633	-.00361	-.01094	1.04423	.57359	1.42744

RUN NO. 21/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.949	-2.103	.00075	-.06399	.10847	-.00563	-.00384	.00254	-.00424	-.03966	.11073	-.53476
.950	.074	.00399	.00557	.11061	-.01432	-.00394	.00234	-.01025	.07042	.11069	.54543
.951	2.264	.00590	.14849	.10959	-.03210	-.00340	.00214	-.01133	.19401	.11695	1.57343
.950	4.449	.00725	.31414	.10796	-.04447	-.00244	.00230	-.01240	.30482	.13201	2.37914
.949	6.628	.01077	.42425	.10752	-.05146	-.00241	.00143	-.01232	.47001	.15377	2.62569
.949	8.747	.00813	.54446	.10445	-.06769	-.00344	.00106	-.00956	.52154	.19077	2.73393
.944	10.951	.00793	.66740	.11033	-.04596	-.00377	.00080	-.00907	.63464	.23514	2.69471
.952	13.153	.00944	.80111	.11530	-.10204	-.00419	.00012	-.00957	.75346	.29457	2.55916
.951	15.320	.01336	.93445	.11951	-.12942	-.00370	.00030	-.01379	.87332	.36332	2.47534
.951	17.499	.01426	1.06643	.12446	-.15269	-.00391	-.00172	-.01032	.97953	.43975	2.22744
.949	19.647	.02236	1.15561	.12451	-.14429	-.00390	-.00255	-.01159	1.04643	.50590	2.06444
.951	21.833	.04637	1.24948	.13144	-.12432	-.00090	-.00614	-.02195	1.11100	.54760	1.49074
.950	22.756	.04197	1.24473	.13542	-.09996	-.01142	-.01262	-.01006	1.09564	.67396	1.40416

LA48 TABULATED SOURCE DATA

LA-48 8-PT TPT 660 RI-0696/136 CR8 SPLIT ELEVON

(RMI0001)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-L1 = .000 ELV-R1 = .000  
 ELV-R0 = .000 BMLAP = .000  
 SPOSK = 25.000 AIRCON = .000  
 ELEVTR = .000

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.979	-2.136	.00244	-.07426	.12732	.00590	-.00454	.00170	-.00702	-.00949	.13000	-.53451
.980	.111	.00646	.05332	.13006	-.01051	-.00483	.00161	-.00993	.05306	.13019	.40759
.980	2.155	.00876	.17890	.12939	.02644	-.00465	.00122	-.01054	.17390	.13622	1.27589
.979	4.476	.00965	.31666	.12735	-.04454	-.00349	.00135	-.01164	.30575	.15170	2.01593
.979	6.711	.00926	.43654	.12791	-.05647	-.00445	.00116	-.01042	.42062	.17429	2.35927
.979	8.915	.00762	.56134	.13100	-.07517	-.00446	.00081	-.00951	.53463	.21547	2.49122
.982	11.033	.00451	.69328	.13653	-.09611	-.00349	.00061	-.00900	.65395	.26464	2.43429
.980	13.122	.01704	.82343	.14090	-.11425	-.00367	-.00127	-.01090	.76995	.32416	2.37519
.981	15.420	.02231	.96560	.14601	-.13724	-.00392	-.00263	-.01090	.89202	.39790	2.24457
.980	17.654	.01354	1.09237	.14934	-.15103	-.00476	-.00088	-.00857	.99559	.47370	2.10172
.979	19.725	.01219	1.21139	.15084	-.16407	-.00529	-.00049	-.00875	1.09940	.55084	1.97771

RUN NO. 11/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.079	-2.103	.00456	-.07114	.14430	.00983	-.00402	.00205	-.00932	-.06584	.14641	-.44847
1.081	.135	.00900	.05536	.14465	-.00906	-.00414	.00169	-.01093	.05504	.14479	.34017
1.080	2.239	.00947	.19149	.14579	-.02702	-.00429	.00137	-.01134	.17565	.15276	1.14984
1.079	4.469	.01057	.31240	.14823	-.04696	-.00374	.00176	-.01303	.29990	.17212	1.74239
1.080	6.799	.00990	.43499	.14923	-.06224	-.00390	.00191	-.01242	.41764	.20001	2.04432
1.078	8.890	.00944	.55211	.15221	-.08041	-.00372	.00127	-.01040	.52200	.23562	2.21544
1.081	11.144	.01062	.68316	.15291	-.09790	-.00376	.00031	-.00945	.64074	.24201	2.27204
1.080	13.303	.01033	.81072	.15473	-.11700	-.00432	-.00001	-.00773	.75336	.33713	2.23460
1.080	15.530	.01105	.93173	.15562	-.13086	-.00454	-.00011	-.00803	.85805	.39939	2.14337
1.077	18.006	.01225	1.07019	.15939	-.14595	-.00460	.00016	-.00992	.96490	.44240	2.00769

RUN NO. 1/ 0

LA48 TABULATED SOURCE DATA

LA-48 8-PT TPT 600 RI-0398/139 CR8 SPLIT ELEVON

(RM1002)

PAGE 3

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -10.000 ELV-RI = -10.000  
ELV-RO = .000 BOFLAP = .000  
SPORER = 25.000

RUN NO. 72/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.999	-1.983	.00437	-1.1260	.06141	.03721	-.00074	.00091	-.00940	-.14034	.06834	-2.11902
.999	.224	.00331	-.04103	.06346	.03641	-.00116	.00071	-.00945	-.04130	.06330	-.63249
.999	2.203	.00602	.03303	.06192	.03485	-.00091	.00033	-.01090	.03063	.06391	.79216
.999	4.242	.00701	.13262	.03671	.03234	-.00113	.00013	-.01061	.14901	.06745	2.14151
.999	6.749	.00609	.29132	.04496	.03121	-.00174	-.00077	-.00936	.27429	.07774	3.52440
.999	8.944	.00386	.37444	.03341	.03193	-.00201	-.00034	-.00760	.36496	.09090	4.01502
.999	10.540	.00325	.48962	.03402	.02126	-.00092	.00036	-.00945	.47440	.12694	3.73724
.999	12.661	.00442	.60032	.04212	.01147	-.00156	-.00014	-.00677	.57669	.17273	2.33943
.999	14.671	.00446	.73044	.04416	.00099	-.00244	-.00033	-.00573	.69547	.22743	3.03434
.997	17.277	.00616	.86106	.05470	.00093	-.00140	-.00057	-.00771	.80596	.30796	2.61713
.996	19.043	.00844	.97208	.05392	-.01491	-.00076	-.00042	-.00746	.90102	.36440	2.44311
.999	21.023	.00746	1.07740	.03206	-.01409	-.00042	-.00071	-.00990	.94700	.43511	2.26439
.991	21.992	.00445	1.13037	.05104	-.01234	-.00049	-.00091	-.01036	1.02919	.47071	2.14649

RUN NO. 62/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.999	-2.162	.00275	-1.1946	.06804	.04473	-.00204	.00163	-.00756	-.13545	.07197	-2.16554
.999	.095	.00403	-.04463	.06411	.04242	-.00215	.00123	-.00934	-.04476	.06403	-.71674
.999	2.263	.00419	.06439	.06640	.03903	-.00223	.00054	-.00949	.05191	.06490	.89460
.999	4.441	.00446	.14392	.06254	.03376	-.00240	.00047	-.01074	.17432	.07663	2.32954
.999	6.343	.00435	.27744	.06314	.02960	-.00235	.00044	-.01023	.26920	.09390	2.47929
.999	8.577	.00795	.34931	.06564	.02445	-.00237	.00030	-.00974	.37516	.12371	3.44944
.999	10.717	.00725	.46900	.07042	.02114	-.00131	.00030	-.00940	.46635	.16713	2.91229
.999	12.740	.00437	.59130	.07374	.01496	-.00133	.00046	-.00970	.56044	.20232	2.77031
.994	15.012	.00924	.71920	.07749	.00728	-.00241	.00105	-.00619	.67454	.26114	2.54324
.997	17.370	.01342	.86660	.04272	-.01463	-.00099	.00106	-.01097	.80240	.33664	2.34445
.999	19.149	.01653	.95412	.04571	-.01656	-.00031	.00166	-.01211	.87294	.39456	2.21245
.996	21.908	.01941	1.06233	.04411	-.00240	-.00046	.00349	-.00949	.94201	.47954	1.94510
.999	22.542	.02034	1.04971	.04916	.00743	-.00271	.00445	-.00917	.93363	.49211	1.93326

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LA46 TABULATED SOURCE DATA

PAGE 6

LA-46 8-PT T-7 800 RI-0000/139 ORB SPLIT ELEVON

(RM1002)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = .000 BOP-AP = .000  
 SPOZER = 25.000

WASH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.143	.00434	-1.14091	.07134	.04213	-.00433	.00122	-.00761	-.14814	.07686	-1.90142
.050	.094	.00732	-.03349	.07335	.03702	-.00433	.00079	-.00901	-.03396	.07332	-.48197
.100	2.192	.00947	.04363	.07269	.02942	-.00379	.00220	-.00920	.04261	.07609	1.08433
.150	4.476	.01099	.20442	.07325	.02249	-.00478	.00116	-.01012	.19408	.08499	2.22607
.200	6.224	.01023	.29009	.07649	.02043	-.00492	.00016	-.00941	.24007	.10790	2.60325
.250	8.893	.00633	.40697	.08039	.01763	-.00629	-.00336	-.00676	.39014	.14099	2.76719
.300	10.436	.00433	.50817	.08394	.01320	-.00549	-.00071	-.00575	.44332	.17794	2.71562
.350	13.707	.01109	.62070	.08493	.00341	-.00336	-.00147	-.00547	.54491	.22369	2.59184
.400	15.044	.01345	.73076	.09132	-.00463	-.00364	-.00124	-.00494	.64142	.27434	2.44936
.450	17.240	.01596	.83193	.09347	-.01431	-.00443	-.00123	-.01115	.74485	.34424	2.27907
.500	19.439	.01949	.92881	.09439	-.02249	-.00295	-.00224	-.01203	.87494	.41369	2.11905
.550	21.567	.02247	1.03449	.09974	-.02721	-.00412	-.00343	-.01162	.94400	.48034	1.98311
.600	22.498	.02334	1.06731	.10039	-.00391	-.00672	-.00352	-.00316	.94766	.50115	1.90994

WASH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.139	.00423	-.12396	.04467	.03314	-.00412	.00130	-.00794	-.12274	.04931	-1.37432
.050	.094	.00790	-.00045	.04705	.02346	-.00396	.00116	-.00949	-.00053	.04705	-.00614
.100	2.175	.00931	.11208	.04664	.01747	-.00140	.00147	-.01237	.10471	.09047	1.19621
.150	4.346	.01116	.20448	.04977	.02199	-.00234	.00116	-.01375	.19717	.10401	1.89369
.200	6.532	.01035	.31090	.09120	.01636	-.00444	.00044	-.01034	.30447	.12666	2.40341
.250	8.666	.00793	.41950	.09313	.00761	-.00364	.00070	-.00459	.39039	.15710	2.54223
.300	10.436	.01026	.54033	.09653	-.00444	-.00634	-.00026	-.00476	.51262	.19700	2.60207
.350	13.096	.01543	.64907	.10343	-.01590	-.00339	-.00193	-.00767	.62444	.24370	2.49431
.400	15.137	.01496	.74920	.10346	-.02604	-.00377	.00005	-.01303	.71339	.30794	2.37643
.450	17.313	.01716	.84155	.10824	-.03626	-.00433	-.00076	-.01309	.80994	.36340	2.22643
.500	19.477	.02043	.94472	.10907	-.04027	-.00344	-.00146	-.01431	.89672	.43243	2.07177
.550	21.625	.02346	1.07033	.11212	-.03372	-.00440	-.00332	-.01204	.95346	.49475	1.91293
.600	22.581	.02341	1.08143	.11247	-.02333	-.00601	-.00334	-.01153	.96496	.52311	1.84466

LA68 TABULATED SOURCE DATA

PAGE 7

LA-48 8-PT TPT 600 RI-0699/136 CRD SPLIT ELEVON

(RM1002)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -10.000 ELV-RI = -10.000  
ELV-RO = .000 EDPLAP = .000  
SPOKES = 29.000

RUN NO. 32/ 0

WAOH	ALPHA	BETA	CN	CA	CLM	COL	CYN	CY	CL	CD	L/D
.980	-2.129	.00007	-.12375	.09249	.03470	-.00323	.00213	-.00634	-.12021	.09702	-1.23906
.981	.051	.00442	.00393	.09341	.02071	-.00343	.00235	-.01133	.00394	.09341	.04027
.982	2.235	.00712	.11939	.09475	.01429	-.00161	.00260	-.01375	.11560	.09833	1.16390
.983	4.348	.00173	.21139	.09390	.02245	-.00362	.00279	-.01275	.00344	.11179	1.41996
.984	6.556	.00793	.32791	.09670	.01337	-.00417	.00132	-.01117	.01462	.13390	2.35690
.919	4.733	.00799	.43703	.09990	.00364	-.00642	.00120	-.01003	.41697	.16470	2.53108
.920	10.475	.00819	.59516	.10231	-.01475	-.00619	.00093	-.01030	.32480	.20394	2.56727
.919	13.040	.01566	.67129	.10423	-.02390	-.00341	-.00201	-.00742	.63746	.25370	2.49193
.919	15.230	.01480	.79994	.10762	-.03476	-.00310	.00076	-.01493	.74361	.31399	2.36927
.980	17.347	.01606	.91374	.11067	-.03321	-.00416	-.00264	-.01323	.93491	.37967	2.21541
.919	19.335	.01996	1.01404	.11332	-.03454	-.00425	-.00122	-.01404	.91779	.44594	2.09333
.919	21.679	.02409	1.08414	.11690	-.04494	-.00393	-.00196	-.01570	.96910	.51032	1.49733
.919	22.620	.02227	1.11261	.11747	-.03645	-.00624	-.00245	-.01163	.99175	.53633	1.42942

RUN NO. 22/ 0

WAOH	ALPHA	BETA	CN	CA	CLM	COL	CYN	CY	CL	CD	L/D
.949	-2.110	.00537	-.12656	.10715	.04462	-.00364	.00290	-.01023	-.12233	.11174	-1.09637
.990	.056	.00703	-.00017	.11024	.02699	-.00364	.00241	-.01249	-.00024	.11024	-.00234
.951	2.236	.00714	.13542	.11011	.00964	-.00247	.00275	-.01484	.13097	.11536	1.13539
.952	4.444	.00499	.23341	.10465	.00351	-.00260	.00292	-.01603	.24423	.12796	1.90470
.951	6.612	.00967	.36290	.10614	-.00310	-.00332	.00212	-.01439	.34764	.14916	2.33067
.990	8.761	.00420	.44304	.10901	-.01932	-.00362	.00179	-.01291	.43595	.14033	2.55619
.949	10.937	.00441	.60724	.10932	-.03539	-.00359	.00273	-.01322	.57544	.22276	2.59323
.949	13.124	.01143	.72943	.11105	-.04694	-.00334	.00042	-.01079	.69515	.27391	2.57225
.949	15.293	.01644	.85129	.11379	-.06614	-.00225	-.00074	-.01339	.79112	.33431	2.36642
.990	17.463	.02790	.97322	.11413	-.09324	-.00370	-.00229	-.01087	.90291	.40474	2.20614
.949	19.633	.02342	1.06994	.12130	-.04292	-.00299	-.00276	-.01224	.96594	.47374	2.04114
.951	21.879	.04472	1.14864	.12779	-.06610	-.00122	-.00653	-.02227	1.03756	.55242	1.47594
.949	22.727	.04542	1.14349	.12993	-.03135	-.00635	-.00766	-.01631	1.04216	.57630	1.40437

ORIGINAL PAGE IS  
OF POOR QUALITY

LA48 TABULATED SOURCE DATA

PAGE 8

LA-48 8-FT TPT 680 KI-0898/139 ORG SPLIT ELEVON

(RM1002)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -10.000 ELV-RI = -10.000  
ELV-RO = .000 SDFLAP = .000  
SPOBRK = 23.000

RUN NO. 12/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.979	-2.179	.00371	-.13911	.12496	.03356	-.00363	.00237	-.01004	-.13426	.13016	-1.03.32
.981	.006	.00801	-.00333	.12912	.03314	-.00380	.00235	-.01336	-.00434	.12912	-.06461
.981	2.179	.00922	.12882	.12983	.01319	-.00349	.00235	-.01415	.12143	.13355	.91219
.990	4.577	.00916	.26379	.12763	.00032	-.00274	.00311	-.01659	.23276	.14827	1.70472
.979	6.710	.00911	.37937	.12816	-.01141	-.00372	.00221	-.01306	.36081	.17149	2.10399
.979	8.149	.00770	.50342	.13133	-.03131	-.00385	.00220	-.01275	.47920	.20751	2.30927
.979	10.967	.01172	.63142	.13370	-.05284	-.00353	.00160	-.01121	.59457	.25079	2.37079
.991	13.165	.01759	.77115	.13717	-.07370	-.00348	-.00093	-.01140	.71930	.30978	2.32264
.979	15.425	.02165	.93714	.14014	-.09485	-.00312	-.00160	-.01290	.82755	.37372	2.21439
.990	17.624	.01303	1.07851	.14528	-.09159	-.00392	.00062	-.01261	.91719	.44381	2.06663

RUN NO. 2/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.079	-2.166	.00578	-.13095	.14674	.03283	-.00321	.00221	-.01084	-.12521	.15158	-.92601
1.090	.031	.00948	-.00123	.14784	.03277	-.00332	.00192	-.01268	-.00131	.14784	-.00885
1.079	2.262	.01199	.13236	.15011	.01080	-.00309	.00182	-.01425	.12633	.15522	.81387
1.079	4.324	.01173	.26004	.15169	-.00336	-.00215	.00245	-.01596	.24727	.17172	1.43993
1.079	6.741	.01105	.37896	.15347	-.02066	-.00301	.00231	-.01907	.35833	.19689	1.81992
1.079	8.911	.01077	.50336	.15376	-.03926	-.00287	.00139	-.01215	.47547	.22988	2.05967
1.079	11.184	.01113	.63316	.15257	-.05738	-.00310	.00079	-.01065	.59154	.27248	2.17092
1.090	13.270	.01144	.75343	.15208	-.07428	-.00390	.00021	-.00922	.69840	.32097	2.17592
1.090	15.607	.01305	.87835	.15182	-.08659	-.00318	-.00006	-.00971	.80512	.38253	2.10473
1.090	17.946	.01423	.97961	.15637	-.09279	-.00365	-.00008	-.01067	.88611	.44597	1.98692

LA48 TABULATED SOURCE DATA

LA-48 8-FT TPT 680 RI-0898/139 CR8 SPLIT ELEVON

(RM1003)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = .000 SDFAP = .000  
 SPDRK = 25.000

RUN NO. 73/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-1.899	.00449	-.22284	.06975	.07727	-.00102	.00104	-.00967	-.22041	.07709	-2.89901
.799	-.043	.00642	-.13958	.07157	.07601	-.00103	.00053	-.01091	-.13953	.07166	-1.93270
.800	2.071	.00723	-.03453	.07046	.07411	-.00092	.00027	-.01131	-.03705	.06917	-.53566
.799	4.267	.00780	.07291	.06486	.07197	-.00094	-.00055	-.01121	.06785	.07013	.96756
.799	6.223	.00763	.16619	.05669	.07259	-.00130	-.00026	-.00026	.15896	.07436	2.13767
.799	8.415	.00685	.27493	.04690	.07312	-.00159	-.00040	-.00487	.26324	.08574	3.09350
.799	10.632	.00527	.39993	.04132	.06767	-.00154	-.00065	-.00596	.38544	.11440	3.36934
.799	12.806	.00550	.52423	.04593	.06935	-.00167	-.00021	-.00757	.50078	.16171	3.09684
.799	14.864	.00609	.64099	.04731	.06864	-.00131	-.00046	-.00780	.60813	.20804	2.92319
.798	16.863	.00634	.73590	.05816	.06045	-.00126	-.00045	-.00830	.68730	.26910	2.55404
.797	18.794	.00714	.85906	.05753	.03231	-.00053	-.00070	-.00490	.79471	.33125	2.39915
.799	20.902	.00762	.98435	.05542	.03276	-.00108	-.00078	-.00955	.89980	.40297	2.23294
.799	22.037	.00822	1.04422	.05496	.03313	-.00134	-.00085	-.01039	.94731	.44274	2.13967

RUN NO. 63/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.077	.00403	-.22298	.07561	.08369	-.00212	.00123	-.00764	-.22309	.08375	-2.66376
.801	.019	.00744	-.12259	.07775	.07996	-.00238	.00084	-.00975	-.12241	.07771	-1.97530
.800	2.131	.00919	-.01411	.07639	.07551	-.00256	.00074	-.00907	-.01694	.07582	-.22343
.799	4.337	.00981	.10645	.07213	.07902	-.00287	-.00013	-.00920	.10069	.07994	1.25897
.799	6.448	.00980	.22238	.07166	.06441	-.00299	.00003	-.00973	.21292	.09619	2.21378
.799	8.289	.00814	.37325	.07444	.05452	-.00314	-.00022	-.00740	.35634	.13371	2.56507
.799	10.137	.00780	.45937	.07766	.04755	-.00265	-.00029	-.00696	.43609	.16255	2.69282
.799	13.449	.00749	.57704	.08169	.04836	-.00209	-.00110	-.00620	.54221	.21365	2.53782
.799	14.944	.00983	.64758	.08457	.04780	-.00320	-.00128	-.00607	.60346	.24871	2.42802
.799	17.196	.01375	.79489	.08493	.02773	-.00324	-.00129	-.01017	.73307	.31995	2.29119
.797	19.697	.01769	.89891	.09223	.02849	-.00019	-.00177	-.01305	.81529	.34967	2.09225
.799	21.437	.01979	.96927	.09394	.03699	-.00079	-.00318	-.01119	.86789	.44168	1.96494
.799	22.699	.02108	.99576	.09547	.03473	-.00170	-.00427	-.00949	.98179	.47234	1.86683

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 OF POOR QUALITY



LA48 TABULATED SOURCE DATA

LA-48 8-FT TPT 690 RI-0898/139 CRB SPLIT ELEVON

(RM1003)

PAGE 10

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = .000 SDFLAP = .000  
SPOBRK = 25.000

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.90	-2.126	.00404	-.22397	.09068	.08494	-.00461	.00094	-.00620	-.22082	.08893	-2.48301
.91	.033	.00789	-.10798	.09309	.07779	-.00469	.00037	-.00426	-.10796	.08299	-1.30077
.92	2.199	.01017	.01490	.08181	.06889	-.00325	-.00022	-.00459	-.01176	.08232	.14287
.93	4.468	.01060	.14449	.09081	.06022	-.00353	-.00061	-.00794	.13777	.09161	1.90382
.94	6.312	.01000	.29065	.08402	.03397	-.00376	-.00025	-.00438	.23950	.11190	2.14023
.95	8.845	.00979	.36473	.08645	.04461	-.00624	-.00032	-.00678	.34759	.14029	2.47764
.96	10.891	.00969	.48683	.09105	.03545	-.00617	-.00093	-.00647	.46046	.18139	2.54064
.97	12.996	.01039	.58153	.09504	.03288	-.00593	-.00118	-.00613	.54327	.22338	2.44098
.98	15.397	.01274	.69424	.10027	.02971	-.00433	-.00075	-.00975	.64270	.28099	2.28725
.99	17.207	.01499	.79407	.10374	.02236	-.00418	-.00105	-.01107	.71829	.33103	2.16973
.99	19.335	.01916	.88332	.10493	.02039	-.00309	-.00200	-.01249	.79875	.39147	2.04038
.99	21.432	.02152	.97345	.10710	.02788	-.00385	-.00316	-.01153	.86684	.45570	1.90224
.99	22.468	.02345	.99257	.10793	.04005	-.00509	-.00483	-.00456	.87598	.47907	1.82850

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.90	-2.190	.00499	-.21942	.09185	.08872	-.00508	.00096	-.00714	-.21219	.10003	-2.12043
.91	.004	.00840	-.09078	.09422	.07666	-.00477	.00045	-.00432	-.09077	.09423	-.96325
.92	2.134	.01016	.03718	.09377	.06401	-.00441	.00017	-.00918	.03363	.09510	.35361
.93	4.345	.01114	.15113	.09492	.05956	-.00362	.00035	-.01060	.14331	.10599	1.35598
.94	6.317	.01099	.27119	.09734	.05008	-.00618	-.00017	-.00994	.25839	.12749	2.02676
.95	8.681	.01064	.39317	.10187	.03416	-.00718	-.00019	-.00462	.37329	.16703	2.35237
.96	10.841	.01071	.50778	.10567	.02297	-.00664	-.00032	-.00934	.47882	.19929	2.40264
.97	12.993	.01162	.60865	.10793	.02015	-.00603	-.00106	-.00701	.56880	.24202	2.35023
.98	15.129	.01470	.70882	.11172	.01556	-.00345	.00009	-.01329	.63316	.29233	2.23433
.99	17.288	.01688	.81151	.11419	.00791	-.00405	-.00079	-.01276	.74091	.35019	2.11572
.99	19.444	.02135	.92104	.11721	.00448	-.00289	-.00115	-.01589	.82949	.41713	1.98858
.99	21.600	.02403	1.00329	.12006	.01042	-.00392	-.00279	-.01356	.89050	.48171	1.84862
.99	22.534	.02484	1.02832	.11943	.01948	-.00507	-.00285	-.01423	.90202	.50395	1.78990

LA48 TABULATED SOURCE DATA

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LA-48 8-FT TPT 640 RI-0898/139 CR8 SPLIT ELEVON

(RH1003)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = .000 BOFLAP = .000  
SPORER = 25.000

RUN NO. 33/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.920	-2.147	.00449	-2.1196	.09447	.09160	-.00344	.00121	-.00739	-.20809	.10840	-1.95570
.921	.012	.00735	-.07919	.10121	.07575	-.00545	.00104	-.00926	-.07921	.10119	-.74272
.920	2.211	.00942	.04763	.10097	.06209	-.00390	.00096	-.01109	.04370	.10273	.42540
.920	4.369	.01139	.16154	.10208	.05472	-.00425	.00092	-.01230	.15330	.11409	1.34374
.920	6.553	.01036	.28169	.10334	.04984	-.00559	.00052	-.01029	.26903	.13481	1.94839
.919	8.705	.01026	.40212	.10665	.03173	-.00714	.00054	-.01029	.34134	.16628	2.29332
.919	10.891	.01019	.52189	.11032	.01731	-.00617	.00052	-.01024	.49148	.20642	2.37640
.920	13.039	.01270	.63389	.11280	.00976	-.00531	-.00179	-.00762	.59210	.25290	2.34130
.919	15.209	.01536	.73709	.11627	.00200	-.00323	.00069	-.01534	.69077	.30557	2.22794
.919	17.343	.01693	.84533	.11971	.00831	-.00367	-.00116	-.01434	.77151	.36531	2.11194
.919	19.503	.02020	.94643	.12166	-.01015	-.00323	-.00074	-.01568	.85151	.43065	1.97728
.919	21.634	.02506	1.02212	.12331	-.00249	-.00303	-.00199	-.01659	.90466	.49145	1.84079
.917	22.615	.02414	1.09344	.12394	.00735	-.00539	-.00296	-.01302	.92211	.51817	1.77954

RUN NO. 23/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.930	-2.147	.00498	-2.1469	.11076	.10682	-.00429	.00162	-.00491	-.21039	.11473	-1.77200
.931	-.069	.00869	-.04347	.11290	.04453	-.00452	.00164	-.01197	-.04333	.11300	-.73741
.931	2.242	.01109	.06230	.11372	.06267	-.00417	.00178	-.01431	.03781	.11607	.49802
.930	4.404	.01133	.14468	.11347	.05135	-.00396	.00159	-.01347	.17542	.12732	1.37796
.949	6.590	.01137	.30430	.11476	.03959	-.00399	.00149	-.01390	.24914	.14897	1.94223
.949	8.761	.00964	.43351	.11638	.02165	-.00445	.00126	-.01170	.41072	.18105	2.25849
.949	10.933	.00938	.56804	.11896	.00709	-.00369	.00164	-.01279	.53313	.22435	2.27633
.930	13.105	.01212	.69259	.11955	-.01062	-.00335	.00029	-.01036	.63771	.27121	2.35134
.932	15.285	.02197	.79650	.12324	-.02327	-.00249	-.00129	-.01449	.73593	.32946	2.33754
.930	17.422	.01922	.89579	.12593	-.03390	-.00209	-.00069	-.01426	.81702	.38927	2.10424
.930	19.625	.02403	1.01098	.12991	-.04003	-.00161	-.00236	-.01337	.90982	.46191	1.96710
.949	21.797	.04639	1.10259	.13461	-.02044	-.00087	-.00615	-.02202	.97378	.53440	1.82220
.930	22.700	.04729	1.13208	.13490	-.01372	-.00435	-.00361	-.02466	.99232	.56133	1.76779

REPRODUCED FROM  
ORIGINAL DATA

LA48 TABULATED SOURCE DATA

PAGE 12

LA-48 8-PT TPT 880 RI-0899/135 CRB SPLIT ELEVON

(RH1003)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = .000 BDPLAP = .000  
SPOBK = 25.000

RUN NO. 13/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.979	-2.141	.00590	-.20472	.12847	.10644	-.00400	.00184	-.01010	-.20377	.13617	-1.49842
.980	-.031	.00894	-.08116	.13294	.08675	-.00419	.00199	-.01181	-.06109	.13294	-.62977
.980	2.232	.01127	.08228	.13493	.06447	-.00416	.00195	-.01332	.03699	.13845	.41644
.980	4.399	.01042	.18754	.13658	.05057	-.00378	.00177	-.01354	.17634	.19053	1.17277
.979	6.736	.00976	.32425	.13790	.03180	-.00395	.00176	-.01305	.30583	.17494	1.74785
.979	9.729	.00906	.44492	.14288	.01094	-.00429	.00169	-.01230	.42194	.20934	2.01593
.981	10.991	.00882	.59732	.14725	-.01351	-.00411	.00162	-.01195	.54847	.25673	2.19807
.982	13.100	.01756	.72243	.14898	-.03713	-.00397	-.00150	-.00966	.66986	.30845	2.16991
.990	15.294	.02215	.84279	.14911	-.04734	-.00275	-.00162	-.01319	.77388	.36316	2.11929
.990	17.663	.01266	.95670	.15153	-.05043	-.00348	.00059	-.01223	.85564	.43462	1.99170

RUN NO. 3/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.091	-2.239	.00796	-.19831	.15680	.10051	-.00318	.00137	-.00993	-.19304	.16427	-1.17512
1.091	-.031	.01049	-.06913	.15802	.07970	-.00334	.00164	-.01300	-.06904	.15806	-.43640
1.090	2.236	.01309	.06959	.16020	.05643	-.00315	.00181	-.01501	.06329	.16279	.38875
1.090	4.477	.01232	.19832	.16295	.03868	-.00309	.00202	-.01511	.18499	.17793	1.03970
1.091	6.823	.01187	.32073	.16548	.01930	-.00315	.00211	-.01507	.29950	.20137	1.49737
1.090	9.804	.01082	.44905	.16858	-.00285	-.00365	.00171	-.01313	.41794	.23542	1.77531
1.079	11.101	.01125	.59692	.16718	-.02568	-.00355	.00111	-.01172	.54375	.27705	1.96261
1.090	13.232	.01207	.71092	.16333	-.04336	-.00357	.00032	-.01002	.85457	.32170	2.03474
1.079	15.354	.01292	.82964	.16076	-.03632	-.00311	.00724	-.01052	.75765	.37403	2.02567
1.079	17.675	.01377	.93121	.16237	-.05795	-.00280	.00025	-.01131	.83789	.43763	1.91463

LA48 TABULATED SOURCE DATA

LA-45 8-FT TPT 640 RI-0498/139 CRB SPLIT ELEVEN

(RH1004)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -30.000 ELV-RI = -30.000  
ELV-RO = .000 SDPLAP = .000  
SPDRK = 25.000

RUN NO. 74/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.151	.00394	-2.7880	.04523	.09898	-.00253	.00037	-.00684	-.27516	.09377	-2.87300
.001	-.033	.00625	-.17994	.04424	.09440	-.00236	-.00007	-.00944	-.17990	.04440	-2.93501
.002	.173	.00664	-.17292	.04403	.09433	-.00227	-.00020	-.00903	-.17319	.04733	-1.97866
.003	2.045	.00740	-.04166	.04730	.09280	-.00290	-.00095	-.00945	-.04472	.04433	-1.00464
.004	4.139	.00790	.02186	.04235	.09112	-.00291	-.00122	-.00770	.01585	.04371	.14944
.005	5.445	.00740	.10407	.07656	.09136	-.00330	-.00142	-.00715	.09574	.04626	1.11033
.006	8.359	.00669	.22731	.06351	.09282	-.00344	-.00169	-.00476	.21566	.09344	2.49113
.007	10.325	.00599	.33541	.05622	.08946	-.00341	-.00163	-.00396	.32730	.11550	2.77325
.008	12.539	.00531	.45807	.06157	.08241	-.00430	-.00151	-.00369	.43374	.15255	2.71873
.009	14.395	.00537	.56921	.06342	.07530	-.00416	-.00157	-.00335	.53547	.20333	2.63354
.010	16.748	.00580	.67732	.07426	.07057	-.00217	-.00156	-.00315	.62719	.26629	2.35527
.011	18.664	.00760	.79226	.07326	.06170	-.00092	-.00117	-.00210	.72715	.32294	2.23166
.012	20.924	.00737	.91200	.07341	.06643	-.00036	-.00034	-.00107	.82536	.39462	2.00409
.013	21.994	.00418	.96926	.07426	.06932	-.00079	-.00064	-.00193	.87031	.43146	2.01663

RUN NO. 84/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.293	.00410	-.29434	.04764	.10995	-.00243	.00145	-.00445	-.29064	.09935	-2.92354
.001	.044	.00179	-.16935	.04374	.11266	-.00211	.00176	-.00439	-.16919	.04552	-1.84092
.002	2.103	.00940	-.06611	.04451	.09429	-.00249	.00034	-.00170	-.06931	.04602	-.00573
.003	4.326	.00339	.01979	.04479	.07493	-.00271	.00004	-.00043	.04326	.04430	.48990
.004	6.256	.00074	.05661	.04267	.06930	-.00325	.00074	-.00044	.11454	.09049	1.40403
.005	8.158	.00119	.11124	.04314	.07962	-.00316	-.00024	-.00043	.07154	.12575	2.11226
.006	10.615	.00445	.41556	.04821	.06560	-.00309	-.00020	-.00040	.30237	.16124	2.43405
.007	12.922	.00452	.54072	.04441	.05727	-.00265	-.00035	-.00065	.50762	.20620	2.46144
.008	14.929	.01511	.62797	.04529	.06269	-.00294	-.00139	-.00095	.59223	.25345	2.29362
.009	17.219	.01464	.77494	.04425	.04191	-.00091	-.00195	-.00092	.71116	.32325	2.20002
.010	19.321	.01564	.87377	.04132	.04024	-.00091	-.00174	-.00134	.70103	.35471	2.05619
.011	21.194	.02034	.93295	.04243	.04449	-.00111	-.00312	-.00195	.83241	.43240	1.92424
.012	22.673	.02335	.97190	.04314	.06746	-.00116	-.00453	-.00103	.85547	.47134	1.81506

ORIGINAL PAGE IS  
OF POOR QUALITY

LA46 TABULATED SOURCE DATA

LA-46 8-FT TPT 880 RI-0898/139 CRB SPLIT ELEVEN

(RH1004)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -30.000 ELV-RI = -30.000  
 ELV-RO = .000 BDFLAP = .000  
 SPOERK = 25.000

WCH	ALPHA	BETA	CN	CA	CLM	CSL	CIN	CY	CL	CD	L/D
.900	-2.195	.00396	-.2876	.09236	.11548	-.00406	.00115	-.00705	-.28009	.10341	-2.76652
.950	-.074	.00797	-.16897	.09396	.10508	-.00398	.00073	-.00941	-.16895	.09410	-1.79441
.990	2.155	.01115	-.04429	.09309	.09629	-.00430	.00010	-.01042	-.04776	.09136	-.52283
.990	4.262	.01097	.07631	.09142	.09931	-.00491	-.00018	-.00946	.06928	.09687	.71518
.990	6.481	.01008	.20360	.09147	.07811	-.00546	-.00025	-.00947	.11997	.11387	1.68596
.990	8.753	.00978	.33515	.09379	.06522	-.00599	-.00040	-.00782	.31697	.14369	2.20591
.990	10.799	.01028	.43352	.09751	.05390	-.00538	-.00038	-.00936	.42725	.18068	2.38470
.990	12.990	.01066	.56427	.10372	.04607	-.00434	-.00008	-.00729	.52675	.22735	2.31691
.990	15.203	.01376	.67639	.10740	.03861	-.00444	-.00017	-.00702	.62456	.26102	2.22247
.990	17.200	.01379	.78129	.10875	.02779	-.00503	-.00016	-.01262	.71419	.33492	2.13238
.990	19.355	.01904	.86770	.11076	.02832	-.00592	-.00197	-.01245	.78209	.39180	1.98613
.990	21.465	.02367	.95660	.11234	.03319	-.00374	-.00359	-.01232	.84896	.45507	1.86556
.990	22.445	.02465	.97964	.11457	.04316	-.00431	-.00471	-.01009	.86169	.47992	1.75550

RUN NO. 44/ 0

WCH	ALPHA	BETA	CN	CA	CLM	CSL	CIN	CY	CL	CD	L/D
.900	-2.241	.00491	-.28614	.10322	.12420	-.00399	.00142	-.00946	-.28189	.11433	-2.46555
.950	-.054	.00779	-.17926	.10432	.11109	-.00378	.00098	-.00929	-.17916	.10447	-1.52346
.990	2.124	.01133	-.03272	.10341	.09919	-.00325	.00041	-.01091	-.03653	.10212	-.35770
.990	4.317	.01190	.09420	.10311	.09001	-.00359	.00027	-.01099	.08617	.10991	.78403
.990	6.478	.01104	.21806	.10979	.07693	-.00399	.00012	-.00990	.20482	.12902	1.58750
.990	8.667	.01116	.35078	.10922	.05972	-.00670	-.00037	-.00952	.33032	.16083	2.05386
.990	10.843	.01199	.48214	.11460	.04224	-.00592	-.00058	-.00927	.45198	.20326	2.22364
.990	12.994	.01266	.58546	.11752	.03619	-.00554	-.00145	-.00675	.54409	.24606	2.21121
.990	15.154	.01582	.69490	.12194	.02888	-.00593	-.00118	-.01043	.63879	.29923	2.13475
.990	17.301	.01900	.79448	.12390	.02005	-.00498	-.00217	-.01090	.72181	.35419	2.03792
.990	19.414	.02155	.89622	.12357	.01513	-.00266	-.00142	-.01524	.80419	.41444	1.94044
.990	21.602	.02421	.99096	.12590	.01511	-.00399	-.00298	-.01329	.87501	.48189	1.81579
.990	22.539	.02446	1.01370	.12709	.02175	-.00493	-.00296	-.01373	.88757	.50592	1.75436

RUN NO. 44/ 0

LA48 TABULATED SOURCE DATA

LA-48 9-FT TPT 690 RI-0999/139 CR8 SPLIT ELEVON

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(RH1004)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -30.000 ELV-RI = -30.000  
ELV-RO = .000 BDFLAP = .000  
SPDRK = 25.000

RUN NO. 34/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.920	-2.216	.00506	-.24591	.10946	.12946	-.00443	.00155	-.00491	-.24146	.12044	-2.33706
.922	-.021	.00480	-.15467	.11122	.11533	-.00401	.00110	-.01063	-.15463	.11128	-1.34955
.920	2.152	.01119	-.02487	.10975	.10091	-.00367	.00065	-.01129	-.02498	.10874	-.26648
.919	4.328	.01120	.10281	.11076	.09104	-.00427	.00034	-.01101	.09421	.11751	.40174
.920	6.504	.01131	.22677	.11214	.07775	-.00601	.00019	-.01008	.21261	.13715	1.55019
.920	8.688	.01112	.36028	.11596	.06052	-.00676	-.00033	-.00493	.33463	.16905	2.00317
.919	10.866	.01207	.49438	.12131	.03960	-.00558	-.00070	-.00414	.46265	.21233	2.17486
.920	13.022	.01344	.60376	.12390	.02469	-.00519	-.00166	-.00693	.58031	.25676	2.14229
.919	15.146	.01524	.71724	.12815	.01492	-.00536	-.00042	-.01197	.65463	.31156	2.11401
.919	17.325	.01955	.81746	.13017	.00707	-.00476	-.00174	-.01179	.74161	.36770	2.01689
.919	19.471	.02335	.91796	.13234	.00409	-.00337	-.00224	-.01415	.92128	.43094	1.90577
.919	21.619	.02541	.99972	.13339	.00454	-.00350	-.00244	-.01643	.94025	.49234	1.74791
.919	22.544	.02493	1.02623	.13523	.01642	-.00344	-.00321	-.01292	.99560	.51894	1.72570

RUN NO. 24/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.950	-2.229	.00561	-.28430	.12196	.14210	-.00315	.00160	-.00437	-.27934	.13292	-2.10147
.951	-.029	.00475	-.14966	.12339	.12401	-.00321	.00113	-.01047	-.14960	.12346	-1.21167
.951	2.165	.01075	-.01240	.12234	.10603	-.00330	.00047	-.01132	-.01701	.12179	-.13969
.950	4.380	.01116	.11613	.12278	.09093	-.00363	.00079	-.01142	.10646	.13125	.41111
.949	6.549	.01190	.24934	.12570	.07342	-.00444	.00070	-.01148	.23362	.15335	1.52344
.951	8.752	.01013	.39004	.12014	.05058	-.00522	.00020	-.00909	.36505	.19009	1.94655
.949	10.930	.01034	.52038	.13101	.03104	-.00410	.00023	-.00924	.48610	.22730	2.13956
.947	13.045	.01439	.64323	.13279	.01635	-.00313	-.00032	-.01045	.59647	.27436	2.16930
.951	15.266	.02356	.76351	.13696	-.00794	-.00267	-.00196	-.01344	.70051	.33317	2.10257
.950	17.410	.01969	.85876	.13944	-.01345	-.00330	-.00156	-.01373	.77758	.39037	1.99149
.952	19.568	.02507	.96944	.14492	-.01791	-.00242	-.00379	-.01225	.86329	.46134	1.47546
.950	21.759	.04602	1.05847	.15127	.00264	-.00143	-.00556	-.00741	.92734	.53302	1.73979
.950	22.668	.04732	1.04629	.15006	.01100	-.00457	-.00575	-.00243	.94455	.55712	1.69540

LA46 TABULATED SOURCE DATA

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LA-46 6-FT TPT 600 RI-0098/139 CRB SPL17 ELEVON

(RH1024)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -30.000 ELV-RI = -30.000  
ELV-RO = .000 BDFLAP = .000  
SPDRK = 25.000

RUN NO. 14/ D

WAOH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.978	-2.172	.00699	-.28001	.14349	.14536	-.00286	.00100	-.00492	-.27437	.15400	-1.78159
.981	-.044	.01014	-.14937	.14609	.12649	-.00314	.00088	-.01063	-.14846	.14620	-1.01815
.981	2.215	.01188	-.00283	.14532	.10513	-.00383	.00104	-.01248	-.00844	.14510	-.05817
.980	4.449	.01309	.13070	.14698	.08666	-.00408	.00113	-.01374	.11891	.15668	.75496
.979	6.574	.01203	.26315	.15019	.06579	-.00416	.00103	-.01263	.24423	.17933	1.36191
.980	8.778	.01092	.40135	.15991	.04198	-.00490	.00045	-.01006	.37245	.21930	1.69834
.980	10.921	.01069	.53307	.16583	.02102	-.00423	.00035	-.00982	.49200	.26383	1.86484
.980	13.131	.01981	.67981	.16517	-.00368	-.00406	-.00226	-.00922	.62451	.31529	1.98073
.979	15.368	.02510	.80365	.16311	-.01769	-.00300	-.00252	-.01295	.73169	.37026	1.97612
.980	17.648	.01347	.92878	.16308	-.00059	-.00402	.00032	-.01243	.83569	.43694	1.91224

RUN NO. 4/ D

WAOH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
1.079	-2.256	.00949	-.28401	.17444	.13667	-.00289	.00068	-.00498	-.25693	.18470	-1.39109
1.080	-.022	.01308	-.12843	.17465	.11472	-.00303	.00083	-.01203	-.12837	.17470	-.73479
1.080	2.127	.01496	.00297	.17515	.09379	-.00363	.00083	-.01344	-.00353	.17514	-.02016
1.080	4.310	.01508	.14161	.18127	.07309	-.00360	.00083	-.01354	.12692	.19184	.68159
1.081	6.677	.01423	.27409	.18374	.04965	-.00300	.00125	-.01421	.25087	.21436	1.17033
1.081	8.790	.01276	.40280	.18712	.02804	-.00358	.00046	-.01042	.36947	.24648	1.49900
1.080	10.946	.01240	.53216	.18885	.00713	-.00384	.00043	-.01052	.48662	.28546	1.69877
1.080	13.266	.01199	.67422	.18598	-.01741	-.00363	.00069	-.01109	.61364	.33334	1.82988
1.080	15.415	.01395	.79973	.17907	-.03373	-.00305	.00075	-.01070	.72443	.38134	1.89969
1.078	17.730	.01468	.91347	.17252	-.04314	-.00337	.00073	-.01138	.81754	.44251	1.84751

LA48 TABULATED SOURCE DATA

PAGE 17

LA-48 8-FT TPT 680 RI-0898/139 CR8 SPLIT ELEVON

(RM1003)

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = -10.000 BDPLAP = .000  
 SPOBRK = 25.000 ALLRON = .000  
 ELEVTR = -10.000

RUN NO. 73/ 0

ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	.00429	-.20902	.06161	.06888	-.00162	.00049	-.00772	-.20666	.06910	-2.99074
.799	.00364	-.11912	.06415	.06943	-.00140	.00029	-.00935	-.11904	.06430	-1.45127
.799	.00727	-.09469	.06400	.06728	-.00126	.00004	-.01067	-.09902	.06349	-1.55955
.799	.00730	.00346	.06187	.06691	-.00127	-.00023	-.00995	.00272	.06205	.04344
.799	.00761	.09355	.05671	.06699	-.00134	-.00049	-.00963	.00447	.06340	1.39302
.799	.00728	.19799	.04724	.06440	-.00190	-.00070	-.00956	.19137	.06934	2.75404
.799	.00676	.29337	.03729	.06364	-.00243	-.00103	-.00647	.24492	.07996	3.56340
.799	.00317	.41239	.04192	.05735	-.00133	-.00001	-.00764	.39765	.11702	3.39413
.799	.00329	.22606	.04568	.04763	-.00146	-.00095	-.00903	.30335	.19959	3.15403
.799	.00552	.63336	.04631	.04043	-.00241	-.00005	-.00347	.61964	.21214	2.92053
.799	.00567	.74345	.03390	.03313	-.00243	-.00114	-.00321	.69733	.26437	2.63774
.799	.00696	.87935	.03000	.02637	-.00142	-.00145	-.00637	.81456	.33525	2.43000
.799	.00456	1.01056	.03095	.02405	-.00077	-.00190	-.00767	.92434	.41161	2.24564
.799	.00462	1.09970	.04977	.02322	-.00118	-.00190	-.00779	.96409	.44269	2.17777

RUN NO. 63/ 0

ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	.00431	-.21305	.06794	.07698	-.00224	.00107	-.00762	-.21236	.07593	-2.79665
.801	.00694	-.10345	.07014	.07159	-.00267	.00077	-.00996	-.10351	.07007	-1.47725
.799	.00991	.07174	.06902	.06734	-.00265	.00026	-.00945	-.00069	.06904	-.01005
.799	.00310	.12679	.06534	.06124	-.00205	.00070	-.00902	.12146	.07491	1.62360
.799	.00811	.24479	.06517	.05169	-.00355	.00013	-.00935	.23972	.09315	2.57344
.799	.00405	.35122	.06739	.04949	-.00399	-.00029	-.00707	.33722	.11904	2.83146
.799	.00434	.44415	.07299	.04442	-.00157	-.00020	-.00772	.42654	.15565	2.74035
.799	.00791	.54154	.07424	.04561	-.00220	-.00114	-.00434	.51037	.19687	2.59344
.799	.01005	.66449	.04200	.04349	-.00301	-.00155	-.00557	.61943	.25414	2.43732
.800	.01359	.79210	.04710	.03519	-.00599	-.00159	-.00973	.72942	.31995	2.24105
.799	.01604	.89024	.04864	.02594	-.00833	-.00197	-.01072	.81035	.37911	2.13752
.799	.01425	.94454	.04979	.02943	-.00794	-.00390	-.01002	.84370	.44322	1.99341
.799	.01940	1.00949	.09143	.04071	-.00263	-.00425	-.00770	.89432	.46954	1.91304

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LA-48 8-PT TPT 600 RI-0098/136 CR8 SPLIT ELEVON

(RH1005)

## PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = -10.000 EDLAP = .000  
 SPOBTK = 29.000 AIRLON = .000  
 ELEVTR = -10.000

RUN NO. 55/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CL	CIN	CT	CL	CD	L/D
.90	-2.104	.00579	-20109	.07239	.07406	-.00307	.00011	-.00360	-.19827	.07994	-2.40023
.90	-.002	.00903	-.09872	.07432	.06753	-.00470	.00027	-.00410	-.04672	.07433	-1.16380
.90	.495	.00923	-.06013	.07515	.06587	-.00494	-.00003	-.00425	-.01078	.07463	-.81441
.90	2.153	.01132	.03491	.07435	.05896	-.00495	-.00079	-.00792	.03209	.07561	.42443
.90	4.320	.01120	.16179	.07442	.04651	-.00479	-.00066	-.00421	.13572	.08640	1.80237
.90	6.470	.00996	.27166	.07759	.03948	-.00303	-.00041	-.00787	.26119	.10770	2.42306
.90	8.606	.00969	.37527	.08149	.03559	-.00263	-.00061	-.00704	.35885	.13672	2.62465
.89	10.917	.01053	.46115	.08722	.03089	-.00265	-.00137	-.00564	.43659	.17222	2.53503
.89	12.946	.01313	.55930	.09195	.03631	-.00274	-.00247	-.00483	.52370	.21474	2.43873
.89	15.026	.01491	.66591	.09498	.03167	-.00267	-.00196	-.00414	.61832	.26438	2.33952
.89	17.260	.01636	.78775	.09849	.02164	-.00340	-.00180	-.00776	.72305	.32778	2.20590
.89	19.414	.02047	.89593	.10043	.01792	-.00260	-.00249	-.01140	.81148	.39249	2.06542
.89	22.221	.02396	1.00447	.10293	.03127	-.00485	-.00302	-.00847	.89094	.47316	1.87502
.89	22.432	.02403	1.00772	.10368	.03391	-.00544	.00560	-.00678	.89174	.48065	1.85511

RUN NO. 45/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CL	CIN	CT	CL	CD	L/D
.901	-2.104	.00479	-16373	.08471	.07164	-.00429	.00048	-.00672	-.18039	.09190	-1.96929
.901	.007	.00726	-.05664	.08729	.03726	-.00424	.00059	-.00799	-.05665	.08724	-.64913
.903	2.219	.00947	.07378	.08727	.04211	-.00416	.00042	-.00937	.07232	.09014	.80233
.903	4.377	.01174	.19415	.08865	.03200	-.00171	.00074	-.01226	.18692	.10321	1.81003
.903	6.345	.01069	.29956	.09178	.02853	.00017	.00071	-.01131	.28715	.12333	2.29116
.903	8.663	.01192	.38964	.09743	.02768	-.00329	-.00027	-.00939	.36947	.15323	2.37979
.903	10.429	.01289	.50255	.09938	.02527	-.00331	-.00045	-.00968	.47494	.19202	2.47342
.903	12.971	.01612	.61197	.10306	.00941	-.00174	-.00243	-.00684	.57322	.23779	2.41062
.909	15.171	.01981	.73174	.10593	-.00359	-.00246	-.00036	-.01292	.67863	.29332	2.31362
.909	17.307	.01827	.84131	.10758	-.00890	-.00297	-.00124	-.01265	.77122	.35300	2.19477
.909	19.474	.02165	.95040	.11039	-.01167	-.00255	-.00194	-.01379	.89933	.42063	2.04293
.909	21.616	.02592	1.02398	.11395	-.00029	-.00323	-.00392	-.01169	.90915	.48292	1.88300
.909	22.563	.02602	1.04341	.11427	.00984	-.00479	-.00405	-.01191	.91970	.50587	1.81804

LA48 TABULATED SOURCE DATA

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LA-48 8-PT 10T 800 RT-0498/130 ORG SPLIT ELEVON

(RM1005)

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = -10.000 BDFLAP = .000  
 SPOSER = 25.000 AIRLON = .000  
 ELEVTR = -10.000

RUN NO. 35/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.920	-2.181	.00482	-1.7011	.09184	.07263	-.00453	.00125	-.00777	-.17452	.09849	-1.77194
.925	.042	.00777	-.04183	.09499	.03259	-.00433	.00113	-.00908	-.04172	.09436	-.44115
.931	2.828	.00999	.09324	.09483	.03268	-.00397	.00104	-.01113	.09149	.09826	.93102
.936	4.390	.01067	.20153	.09534	.02834	-.00047	.00181	-.01440	.19366	.11043	1.75339
.940	6.534	.01129	.30648	.09787	.02639	-.00024	.00091	-.01221	.29335	.13211	2.22052
.945	8.673	.01222	.40770	.10199	.01977	-.00339	.00046	-.01173	.38766	.16231	2.39841
.949	10.874	.01218	.50940	.10418	.00547	-.00374	.00044	-.01169	.50024	.20218	2.47429
.953	13.015	.01442	.64169	.10634	-.00531	-.00212	-.00246	-.00721	.60126	.24812	2.43294
.957	15.206	.01632	.76931	.10940	-.01870	-.00219	-.00025	-.01339	.71369	.30735	2.32209
.961	17.352	.01978	.87937	.11106	-.02971	-.00294	-.00114	-.01379	.80641	.36935	2.19927
.965	19.526	.02312	.98214	.11343	-.03033	-.00294	-.00205	-.01435	.88760	.43556	2.07393
.969	21.662	.02613	1.04631	.11782	-.01562	-.00249	-.00294	-.01467	.92493	.49371	1.87392
.973	22.818	.02578	1.06543	.12076	-.00769	-.00659	-.00329	-.00747	.93742	.52137	1.79900

RUN NO. 35/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.981	-2.143	.00353	-.19099	.10999	.09204	-.00259	.00146	-.00943	-.18690	.11303	-1.63323
.985	.041	.00671	-.05514	.10901	.06948	-.00266	.00195	-.01142	-.03522	.10997	-.90673
.991	2.230	.00949	.08298	.10999	.04774	-.00316	.00194	-.01364	.07866	.11274	.69771
.995	4.429	.00907	.21463	.10923	.02799	-.00294	.00236	-.01444	.20934	.12378	1.65596
.999	6.814	.01070	.33666	.10924	.01719	-.00169	.00197	-.01323	.32194	.14729	2.19904
.999	9.758	.01332	.45312	.10934	.00165	-.00054	.00155	-.01200	.43110	.17765	2.42062
.999	10.920	.01903	.54310	.11125	-.01700	-.00278	.00169	-.01249	.53135	.21994	2.07635
.999	13.114	.01247	.70218	.11221	-.02701	-.00256	-.00706	-.01019	.65937	.26864	2.45073
.999	15.290	.01690	.83114	.11324	-.04942	-.00223	-.00049	-.01266	.77133	.33034	2.33495
.999	17.457	.02092	.93053	.11836	-.06782	-.00291	-.00277	-.00935	.87125	.39406	2.19873
.999	19.728	.02412	1.00987	.12126	-.06378	-.00216	-.00313	-.01135	.94826	.46886	2.02244
.999	21.829	.04444	1.13632	.12709	-.04090	-.00065	-.00065	-.02232	1.07774	.54057	1.85424
.999	22.714	.04686	1.14533	.12919	-.02323	-.00394	-.00451	-.01570	1.00661	.56142	1.79296

ORIGINAL PAGE IS  
 OF POOR QUALITY

LA-48 8-FT TPT 800 RI-0098/139 ORS 3PL11 ELEVON

(RH1005)

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = -10.000 BDPLAP = .000  
 SPDRK = 25.000 AIRCON = .000  
 ELEVTR = -10.000

RUN NO. 15/ 0

WAO	ALPHA	BETA	CN	CA	CLM	COL	CYN	CT	CL	CD	L/D
.979	-2.221	.00422	-.19459	.12379	.09731	-.00290	.00139	-.00410	-.19344	.13140	-1.47369
.980	2.40	.00479	-.04046	.12813	.07316	-.00345	.00165	-.01187	-.04950	.12793	-.38299
.980	3.293	.01037	.14701	.12801	.04096	-.00354	.00145	-.01254	.13941	.13624	1.02320
.975	4.608	.01055	.22779	.12839	.02895	-.00307	.00174	-.01357	.21674	.14626	1.48197
.979	6.601	.00971	.34101	.12946	.01248	-.00267	.00160	-.01250	.32441	.16427	1.92783
.980	8.840	.00953	.47572	.13293	-.00451	-.00301	.00129	-.01146	.44950	.20479	2.19487
.943	11.014	.00949	.60365	.13447	-.02360	-.00309	.00121	-.01120	.56620	.25164	2.24966
.979	12.742	.01712	.71176	.13639	-.04321	-.00261	-.00791	-.01112	.66394	.29048	2.28361
.979	13.430	.02171	.87042	.14063	-.06333	-.00304	-.00194	-.01192	.80149	.36753	2.14144
.940	17.496	.01225	.99870	.14599	-.07449	-.00347	.00739	-.01129	.90359	.44569	2.03187

RUN NO. 15/ 0

WAO	ALPHA	BETA	CN	CA	CLM	COL	CYN	CT	CL	CD	L/D
1.079	-2.216	.00463	-.17630	.14768	.08730	-.00269	.00152	-.00942	-.17266	.13447	-1.11773
1.040	.047	.00964	-.04443	.14846	.06994	-.00329	.00143	-.01253	-.04463	.14840	-.30049
1.062	2.293	.01225	.09422	.14914	.04160	-.00317	.00177	-.01426	.04116	.15279	.57713
1.041	4.401	.01161	.22131	.15229	.01475	-.00307	.00144	-.01402	.20917	.16493	1.23493
1.040	6.621	.01160	.34631	.15414	-.00062	-.00263	.00174	-.01376	.32623	.19304	1.64994
1.040	8.791	.01173	.48299	.15346	-.02071	-.00267	.00796	-.01125	.45221	.22419	1.94172
1.040	10.979	.01264	.59074	.15313	-.03313	-.00247	.00715	-.00946	.55037	.26240	2.09301
1.041	13.237	.01135	.71997	.15291	-.05144	-.00321	.00711	-.00843	.66593	.31370	2.12247
1.040	15.446	.01294	.83930	.15322	-.06442	-.00330	-.00725	-.00799	.76437	.37127	2.09955
1.074	17.681	.01409	.99937	.15747	-.07990	-.00326	-.00733	-.00944	.86610	.44140	1.96042

LAKE TABULATED SOURCE DATA

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LA-48 4-FT TPT 640 RI-0498/139 CR8 SPLIT ELEVON

(RM1006)

PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -20.000 SDFAP = .000  
 POSRK = 20.000 AIRRON = .000  
 ELEVTR = -20.000

RUN NO. 76/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.169	.00451	-.32763	.07649	.12476	-.00145	.00115	-.01002	-.32467	.09893	-3.64990
.800	-.026	.07841	-.22069	.07923	.11964	-.00075	.00084	-.01192	-.22064	.07933	-2.79140
.801	2.211	.00750	-.11075	.07779	.11515	-.00070	.00021	-.01153	-.11367	.07346	-1.54739
.802	4.107	.00700	-.01345	.07314	.11236	-.00081	.00007	-.01131	-.01865	.07139	-.25913
.803	6.041	.00750	.07933	.06541	.11111	-.00111	-.00012	-.01042	.07200	.07340	.90099
.804	8.359	.00600	.19764	.05413	.10965	-.00147	-.00026	-.00862	.07687	.09224	2.24073
.805	10.644	.00603	.33616	.05119	.09942	-.00183	-.00039	-.00779	.32092	.11240	2.95519
.806	12.599	.00528	.43268	.05616	.09472	-.00235	-.00039	-.00672	.41054	.14910	2.75002
.807	14.826	.00633	.55348	.05623	.09253	-.00170	-.00040	-.00835	.52065	.19399	2.85654
.808	16.918	.00593	.64644	.06396	.08468	-.00259	-.00072	-.00691	.67611	.24844	2.41554
.809	17.691	.00637	.73699	.06408	.08491	-.00231	-.00053	-.00703	.67749	.29845	2.29230
.810	20.997	.00712	.86167	.06299	.08205	-.00233	-.00031	-.00703	.74188	.36756	2.12721
.811	22.015	.00805	.92269	.06212	.09337	-.00175	-.00132	-.00869	.83219	.40332	2.03339

RUN NO. 66/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.255	.00334	-.33634	.09397	.14106	-.00202	.00180	-.00427	-.33278	.09714	-3.42590
.800	-.167	.00495	-.22739	.09632	.13337	-.00219	.00118	-.00335	-.22714	.09698	-2.61140
.801	.049	.00675	-.21189	.09329	.12987	-.00181	.00139	-.01074	-.21196	.09510	-2.49065
.802	2.136	.00849	-.09394	.09355	.12189	-.00183	.00095	-.01084	-.09889	.07992	-1.23735
.803	4.144	.00834	.01906	.09398	.11394	-.00226	.00055	-.00932	.09024	.09076	.11446
.804	6.432	.00852	.10251	.07777	.09666	-.00277	.00040	-.00859	.10274	.09554	1.50871
.805	8.694	.00795	.29814	.07945	.07990	-.00329	.00074	-.00808	.29286	.12262	2.30683
.806	10.679	.00756	.40680	.08112	.06996	-.00311	.00075	-.00785	.39473	.15309	2.48069
.807	12.872	.00902	.51935	.08365	.06429	-.00316	-.00101	-.00682	.48767	.19725	2.47234
.808	15.127	.00568	.63491	.07673	.06227	-.00377	-.00152	-.00523	.59024	.24941	2.36673
.809	17.094	.01249	.74048	.09074	.06472	-.00165	-.00145	-.00373	.69057	.30709	2.21596
.810	19.132	.01361	.84003	.09437	.05932	-.00149	-.00178	-.01083	.76259	.36474	2.07077
.811	21.344	.01490	.91810	.09793	.06563	-.00227	-.00315	-.01034	.81915	.42890	1.92247
.812	22.673	.02157	.94512	.10122	.06419	-.00232	-.00423	-.01010	.93306	.45771	1.82006

LA48 TABULATED SOURCE DATA

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LA-48 8-FT TPT 680 RI-0998/139 CRB SPLIT ELEVON

(RM1006)

PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -20.000 BDFLAP = .000  
 SPOSRN = 25.000 AIRCRN = .000  
 ELEVR = -20.000

RUN NO. 36/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.849	-2.238	.00587	-.32956	.09722	.14461	-.00481	.00038	-.00640	-.32990	.10003	-3.25915
.850	-.190	.00909	-.21216	.08915	.13557	-.00460	.00013	-.00772	-.21193	.08970	-2.36252
.849	.316	.00994	-.18123	.08765	.12914	-.00415	.00006	-.00821	-.18171	.08665	-2.09708
.849	2.900	.00688	-.06342	.08661	.11729	-.00443	-.00037	-.00861	-.06685	.08400	-.79583
.849	4.323	.01192	.08436	.08557	.10153	-.00442	-.00047	-.00945	.03772	.09018	.64014
.843	7.477	.01066	.25884	.08782	.07491	-.00415	-.00032	-.00881	.24521	.12075	2.03072
.850	9.937	.01722	.33678	.09003	.06599	-.00386	-.00047	-.00900	.31893	.14072	2.26653
.850	10.930	.00971	.43269	.09396	.05425	-.00299	-.00060	-.00932	.42666	.17809	2.39584
.850	12.745	.01109	.54733	.09577	.04532	-.00263	-.00107	-.00712	.51271	.21416	2.39406
.849	15.261	.01251	.66287	.09958	.04427	-.00134	-.00094	-.00928	.61329	.29657	2.26685
.850	18.198	.01290	.70860	.10298	.04308	-.00024	-.00072	-.00964	.65174	.29657	2.19761
.849	19.117	.01832	.83177	.10765	.04927	-.00034	-.00207	-.01140	.79065	.37411	2.00647
.849	21.901	.02239	.91122	.11280	.06781	-.00210	-.00351	-.01129	.80647	.43993	1.83735
.849	22.407	.02298	.92690	.11567	.08195	-.00210	-.00453	-.00898	.81283	.46026	1.76601

RUN NO. 46/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.900	-2.243	.00702	-.32998	.09857	.15771	-.00480	.00074	-.00821	-.32587	.11141	-2.92496
.900	-.054	.00938	-.19694	.09961	.14080	-.00439	.00042	-.00928	-.19685	.09980	-1.97244
.900	2.140	.01090	-.03902	.09824	.12034	-.00424	-.00003	-.00913	-.06165	.09801	-.64214
.900	4.312	.01201	.08177	.09822	.09872	-.00399	.00003	-.01038	.07416	.10409	.71244
.900	6.970	.01193	.22398	.10049	.07851	-.00371	.00016	-.00976	.21116	.12520	1.68654
.899	8.659	.01131	.35467	.10437	.05711	-.00334	-.00002	-.00970	.33492	.15655	2.13944
.899	10.819	.01041	.47543	.10606	.04103	-.00195	.00004	-.00929	.44681	.19479	2.29378
.899	12.997	.01248	.56643	.11140	.04457	-.00157	-.00126	-.00915	.52687	.23594	2.23308
.900	15.130	.01485	.66251	.11714	.04573	-.00109	-.00020	-.01254	.60897	.28600	2.12922
.899	17.286	.01955	.76815	.11915	.04074	-.00190	-.00090	-.01390	.69783	.34271	2.03622
.901	19.489	.02133	.87934	.12248	.03916	-.00140	-.00183	-.01381	.78700	.40822	1.92824
.899	21.566	.02444	.94910	.12998	.03147	-.00255	-.00370	-.01134	.83635	.46603	1.79463
.900	22.533	.02603	.96844	.12687	.08053	-.00369	-.00401	-.01201	.84597	.48812	1.73313

LA48 7 BULATED SOURCE DATA

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LA-48 8-PT TPT 600 RI-0694/139 CR8 SPL17 ELEVON

(RM1006)

PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -20.000 SDFAP = .000  
 SPOBRK = 25.000 AILRON = .000  
 ELEVTR = -20.000

RUN NO. 36/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.920	-2.241	.00635	-.34021	.10703	.17203	-.00445	.00043	-.00797	-.33376	.12025	-2.79213
.920	-.039	.00954	-.20454	.10734	.13165	-.00461	.00046	-.00934	-.20443	.10759	-1.90001
.920	2.145	.01057	-.03591	.10584	.12704	-.00433	.00013	-.00923	-.05943	.10367	-.57712
.921	4.341	.01145	.09232	.10622	.10231	-.00346	.00024	-.01029	.08401	.11291	.74404
.920	6.311	.01237	.22678	.10756	.09203	-.00322	.00019	-.01097	.21312	.13256	1.60744
.920	8.705	.01032	.35741	.11047	.06140	-.00240	.00062	-.01075	.33651	.16369	2.05585
.919	10.450	.01121	.44505	.11332	.03479	-.00217	.00023	-.01030	.45501	.20279	2.24371
.920	12.999	.01440	.54409	.11770	.03954	-.00164	-.00159	-.00754	.54265	.24607	2.20324
.920	15.197	.01546	.69740	.12221	.03203	-.00157	-.00025	-.01297	.64038	.30075	2.13123
.920	17.332	.01922	.80661	.12450	.02034	-.00224	-.00107	-.01560	.73290	.35915	2.04067
.919	19.449	.02315	.90445	.12564	.02164	-.00211	-.00140	-.01513	.81109	.42032	1.92964
.920	21.642	.02596	.98104	.12496	.03264	-.00231	-.00305	-.01417	.86436	.48170	1.79441
.919	22.990	.02615	.99944	.13136	.04496	-.00459	-.00444	-.01021	.97229	.50521	1.72659

RUN NO. 26/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.931	-2.227	.00652	-.33996	.12060	.14124	-.00421	.00094	-.00909	-.33302	.13372	-2.50333
.932	-.034	.00962	-.19718	.12171	.16060	-.00397	.00072	-.00994	-.19711	.12143	-1.61795
.932	2.161	.01182	-.05023	.12003	.13360	-.00403	.00044	-.01049	-.05472	.11403	-.46351
.931	4.363	.01094	.10324	.11914	.10401	-.00364	.00090	-.01154	.09417	.12672	.74316
.930	6.350	.01049	.24275	.12722	.04009	-.00251	.00136	-.01254	.22746	.14712	1.54675
.930	8.737	.00941	.36328	.12224	.03476	-.00204	.00104	-.01117	.30726	.17904	2.01171
.931	10.933	.00841	.51469	.12456	.03133	-.00204	.00143	-.01122	.44173	.21992	2.19051
.930	13.094	.01132	.63410	.12607	.02317	-.00269	.00014	-.00994	.54905	.26645	2.21072
.930	15.267	.01742	.75073	.12749	.00614	-.00251	-.00099	-.01164	.69056	.32106	2.15090
.930	17.417	.02041	.86592	.13025	-.01044	-.00234	-.00230	-.01075	.78723	.34347	2.05292
.949	19.596	.02455	.97956	.13293	-.01460	-.00123	-.00237	-.01401	.87424	.45376	1.93346
.930	21.745	.04404	1.07195	.13425	.00571	-.00099	-.00636	-.02279	.94409	.52619	1.79414
.930	22.697	.04933	1.09949	.13904	.01493	-.00311	-.00600	-.02327	.96104	.53272	1.73476

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 OF POOR QUALITY

## LA48 TABULATED SOURCE DATA

PAGE 24

LA-48 8-PT TPT 690 RI-0998/139 ORD SPLIT ELEVON

(RH1008)

## PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -20.000 BDFLAP = .000  
SPDRK = 25.000 AIRCON = .000  
ELEVTR = -20.000

RUN NO. 16/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.976	-2.127	.00730	-.33226	.14259	.19631	-.00334	.00103	-.00486	-.32674	.15483	-2.11034
.980	-.046	.01039	-.19487	.14379	.16190	-.00322	.00093	-.01065	-.19475	.14395	-1.35288
.981	2.112	.01164	-.04622	.14205	.13338	-.00337	.00103	-.01226	-.05142	.14025	-.36664
.980	4.357	.01191	.10588	.14335	.10423	-.00283	.00135	-.01346	.09469	.15098	.62712
.978	6.901	.01075	.23657	.14431	.08220	-.00246	.00135	-.01259	.22067	.17059	1.29336
.979	8.769	.01063	.34601	.14813	.05314	-.00318	.00119	-.01220	.35891	.20325	1.74867
.979	10.959	.01106	.52831	.15204	.02473	-.00324	.00113	-.01225	.48977	.24970	1.96142
.979	13.169	.01903	.66067	.15058	.00629	-.00311	-.00160	-.01058	.60999	.29714	2.04951
.982	15.300	.02168	.78772	.15487	-.00927	-.00324	-.00205	-.01190	.71894	.35724	2.01251
.980	17.551	.01418	.90522	.15628	-.01402	-.00387	-.00014	-.01129	.81595	.42198	1.93361

RUN NO. 6/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.090	-2.290	.00960	-.30600	.17068	.16943	-.00240	.00122	-.01070	-.29897	.18272	-1.62624
1.090	-.028	.01206	-.16162	.17127	.14255	-.00304	.00151	-.01336	-.16154	.17134	-.94276
1.090	2.165	.01377	-.02043	.17025	.11454	-.00296	.00127	-.01399	-.02685	.16936	-.15932
1.090	4.290	.01480	.11460	.17091	.08795	-.00305	.00141	-.01907	.10128	.18190	.55678
1.091	6.510	.01322	.24885	.17591	.06442	-.00265	.00144	-.01405	.22730	.20299	1.11976
1.090	8.451	.01169	.39742	.17731	.03424	-.00290	.00124	-.01238	.36540	.23635	1.54601
1.079	11.001	.01231	.52891	.17453	.00942	-.00362	.00093	-.01197	.48589	.27225	1.78472
1.079	13.202	.01165	.65494	.16956	-.00666	-.00399	.00010	-.00905	.59889	.31475	1.90271
1.090	15.415	.01214	.76347	.16328	-.01631	-.00408	-.00004	-.00505	.69785	.36387	1.91788
1.078	17.777	.01480	.89689	.16748	-.03002	-.00306	-.00024	-.01065	.80293	.43331	1.85302

# LA49 TABULATED SOURCE DATA

LA-49 3-FT TPT 690 RI-0698/139 ORB SPLIT ELEVON

(RH1007)

PAGE 25

## PARAMETRIC DATA

BETA = .000 ELV-LO = 9.000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = -9.000 BDFLAP = .000  
 SPOBRK = 25.000

RUN NO. 77/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.799	-2.013	.00691	-.06204	.06442	-.00440	.00639	.00114	-.01349	-.05974	.06856	-.89760
.799	.056	.00800	.03613	.06619	-.00697	.00677	.00139	-.01379	.03607	.06822	.54468
.800	.294	.00843	.04557	.05623	-.00756	.00692	.00107	-.01345	.04524	.06646	.69081
.799	2.345	.01002	.14567	.06404	-.00926	.00764	.00075	-.01683	.14293	.06995	2.04334
.799	4.373	.01034	.24532	.05839	-.01147	.00814	.00056	-.01708	.24015	.07693	3.12166
.799	6.396	.01051	.35071	.04943	-.01413	.00812	.00042	-.01665	.34302	.08820	3.88891
.799	8.439	.00953	.46264	.03895	-.01554	.00715	.00015	-.01449	.45188	.10658	4.23975
.799	10.542	.00775	.58082	.04546	-.03112	.01191	.00207	-.01771	.56270	.19096	3.72758
.799	12.626	.00851	.69193	.05008	-.03824	.00963	.00037	-.01391	.66425	.20011	3.31938
.799	14.842	.00825	.83039	.05459	-.04931	.00695	-.00046	-.01104	.78870	.28549	2.97080
.799	17.112	.01003	.95329	.06240	-.06211	.00730	-.00101	-.01223	.89272	.34014	2.62458
.799	19.956	.01113	1.06069	.06152	-.06664	.00831	-.00152	-.01259	.99319	.40273	2.44129
.799	21.247	.01171	1.18077	.05900	-.06353	.00763	-.00186	-.01274	1.07913	.48299	2.23472
.797	22.117	.01094	1.23287	.05824	-.06055	.00626	-.00194	-.01141	1.12022	.51813	2.16204

RUN NO. 87/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.799	-2.056	.00637	-.06712	.06422	-.00269	.00469	.00195	-.01207	-.06463	.07050	-.91563
.801	.051	.00965	.03541	.07010	-.00491	.00495	.00156	-.01406	.03534	.07014	.50393
.799	2.541	.01145	.16556	.06426	-.01090	.00576	.00114	-.01460	.16237	.07554	2.14958
.799	4.380	.01246	.27426	.06533	-.01660	.00672	.00127	-.01601	.26047	.08679	3.11849
.799	6.693	.01148	.38434	.06780	-.02217	.00723	.00122	-.01495	.37399	.11197	3.34209
.799	8.690	.01025	.48372	.07043	-.02800	.00656	.00067	-.01214	.46753	.14271	3.27617
.799	10.772	.01162	.57880	.07630	-.03347	.00911	.00039	-.01271	.55424	.18314	3.02690
.799	12.881	.01207	.69171	.08078	-.04361	.00846	-.00074	-.00996	.65630	.23295	2.81727
.799	15.141	.01337	.83555	.08473	-.05485	.00671	-.00097	-.01091	.78441	.30702	2.61451
.797	17.358	.01949	.97122	.09009	-.07060	.00962	-.00156	-.01328	.90012	.37573	2.39564



LA-48 8-FT TPT 680 RI-0896/139 CR8 SPLIT ELEVON

(RH1007)

## PARAMETRIC DATA

BETA = .000 ELV-LO = 5.000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = -5.000 SDFLAP = .000  
 SPOERK = 25.000

RUN NO. 57/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.850	-2.079	.00370	-.05720	.07209	-.01450	.00040	.00110	-.00844	-.03455	.07412	-.73600
.870	-.146	.00942	.09560	.07404	-.01367	.00060	.00097	-.01147	.05941	.07420	-.80076
.890	2.268	.01169	.17899	.07379	-.02220	.00132	.00039	-.01190	.17593	.08081	2.17703
.890	4.431	.01263	.28659	.07339	-.02325	.00333	.00071	-.01364	.27991	.09730	2.87666
.890	6.310	.01117	.37306	.07877	-.03093	.00249	.00039	-.01137	.36214	.11929	3.03590
.849	8.684	.01049	.49621	.08204	-.04097	.00107	.00031	-.00870	.47913	.15802	3.06448
.848	12.949	.01736	.71370	.09225	-.06263	.00763	.00231	-.00927	.67488	.24983	2.70139
.890	14.194	.01590	.78948	.09423	-.06741	.00590	.00192	-.00876	.74227	.28493	2.60507
.849	15.285	.01683	.86304	.09639	-.07779	.00570	.00093	-.01307	.80710	.32048	2.51839
.849	22.778	.01275	1.12645	.11070	-.04108	-.01007	.00104	.01990	.99575	.53818	1.83022

RUN NO. 47/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.900	-2.072	.00404	-.04897	.08349	-.01547	-.00190	.00191	-.00819	-.04591	.08521	-.33885
.901	-.089	.00451	.07053	.08601	-.02464	-.00182	.00173	-.01245	.07039	.08612	.81734
.900	2.234	.01101	.18098	.08590	-.02941	-.00079	.00144	-.01373	.17749	.09289	1.91086
.900	4.405	.01197	.26998	.08840	-.02161	.00377	.00148	-.01469	.26229	.10847	2.40922
.900	6.555	.01207	.38590	.09134	-.03403	.00335	.00090	-.01307	.37256	.13475	2.76479
.900	8.703	.01294	.49344	.09510	-.04768	.00373	.00079	-.01184	.47534	.16998	2.81293
.899	10.881	.01336	.62745	.09733	-.06321	.00431	.00079	-.01190	.59780	.21402	2.79322
.899	13.039	.01806	.74402	.10221	-.07975	.00651	.00210	-.00954	.70178	.26742	2.62430
.900	15.214	.01740	.87978	.10724	-.09690	.00513	.00090	-.01369	.82081	.33436	2.45487
.900	17.382	.01912	.99199	.10998	-.10621	.00404	.00153	.01251	.91393	.40132	2.27709

RUN NO. 37/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.921	-2.106	.00413	-.05423	.09326	-.01370	-.00430	.00178	-.00878	-.05078	.09519	-.53349
.921	-.084	.00683	.06213	.09313	-.02093	-.00401	.00164	-.01069	.06200	.09324	.65095
.920	2.249	.00977	.17377	.09418	-.02475	-.00203	.00154	-.01279	.17194	.10101	1.70223
.920	4.404	.01175	.27056	.09573	-.02246	.00203	.00162	-.01468	.26241	.11622	2.23796
.920	6.592	.01335	.39923	.09790	-.03674	.00321	.00070	-.01334	.36539	.14302	2.69489
.920	8.724	.01328	.50994	.10098	-.03320	.00237	.00032	-.01219	.49979	.17677	2.76514
.919	10.928	.01439	.64302	.10300	-.07514	.00319	.00026	-.01147	.61191	.22242	2.74626
.920	13.078	.02018	.76398	.10715	-.08917	.00535	.00053	-.00815	.71992	.27725	2.59669
.919	15.254	.01869	.90302	.11193	-.10113	.00422	.00101	-.01316	.84178	.34588	2.43653
.919	22.659	.02208	1.17821	.12785	-.04298	-.00441	.00056	.00269	1.03902	.57187	1.81511

## LA48 TABULATED SOURCE DATA

PAGE 27

LA-48 6-FT TPT 680 RI-0698/139 CR8 SPLIT ELEVON

(RH1007)

## PARAMETRIC DATA

BETA = .000 ELV-L0 = 5.000  
ELV-L1 = .000 ELV-R1 = .000  
ELV-R0 = -5.000 BDFLAP = .000  
SPORIK = 25.000

RUN NO. 27/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.951	-2.106	.00901	-.06791	.10986	-.00230	-.00090	.00126	-.00784	-.06396	.11128	-.57397
.951	.065	.00967	.05663	.11102	-.01611	-.00012	.00117	-.01032	.05670	.11108	.51043
.951	2.262	.01071	.18742	.11030	-.03264	.00337	.00115	-.01213	.14292	.11781	1.55530
.951	4.492	.01704	.31937	.10890	-.04790	.00226	.00174	-.01337	.30996	.13337	2.32408
.953	6.829	.01205	.42991	.10457	-.05621	.00263	.00063	-.01171	.41490	.15748	2.63214
.953	8.794	.01290	.55367	.10990	-.07297	.00263	.00002	-.01034	.53036	.19326	2.74436
.953	10.969	.01182	.67704	.1214	-.09920	.00240	-.00017	-.00923	.64334	.23491	2.69275
.953	13.154	.01411	.80795	.11480	-.10821	.00300	-.00106	-.00855	.76062	.29556	2.57265
.953	15.334	.01575	.94943	.12070	-.13612	.00295	-.00067	-.01122	.88377	.36711	2.40739
.951	17.505	.02145	1.07267	.12604	-.15641	.00312	-.00325	-.00840	.98904	.44244	2.22423
.949	19.675	.02595	1.16325	.12906	-.14970	.00334	-.00427	-.00954	1.05325	.50937	2.06774
.949	21.856	.03005	1.24900	.13157	-.12406	.00306	-.00753	-.02109	1.11023	.54711	1.89100

RUN NO. 17/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.978	-2.094	.00629	-.07306	.12764	.00959	.00749	.00105	-.00410	-.06434	.13022	-.52481
.980	.157	.00941	.05703	.13071	-.01043	.00021	.00069	-.00947	.05667	.13047	.43303
.980	2.275	.01194	.18535	.13032	-.02429	.00039	.00067	-.01135	.14004	.13757	1.30469
.979	4.446	.01105	.32063	.12847	-.04819	.00194	.00084	-.01126	.30970	.15294	2.02502
.979	6.702	.01110	.44534	.12946	-.06234	.00226	.00164	-.01373	.42719	.18055	2.36609
.980	8.461	.01141	.57097	.13232	-.08126	.00290	.00065	-.01104	.54375	.21449	2.44077
.980	11.077	.01259	.70077	.13791	-.09985	.00382	.00020	-.01070	.66121	.26994	2.44912
.980	13.215	.02033	.83619	.14232	-.12302	.00370	-.00102	-.01336	.78147	.32991	2.30070
.980	15.337	.02590	.97012	.14645	-.14237	.00414	-.00293	-.01226	.89694	.39783	2.25433
.979	17.637	.01767	1.09724	.15044	-.15490	.00341	-.00169	-.00971	1.00312	.47543	2.10183
.979	19.780	.01997	1.21467	.15225	-.16732	.00232	-.00141	-.00915	1.09543	.55350	1.97289

RUN NO. 7/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.079	-2.078	.00929	-.06389	.14546	.00634	.00149	.00064	-.00472	-.06036	.14815	-.40476
1.080	.108	.01265	.05631	.14626	-.00973	.00148	.00090	-.01089	.05404	.14637	.39690
1.080	2.966	.01441	.20917	.14797	-.03354	.00160	.00034	-.01158	.20234	.15709	1.26407
1.079	4.769	.01410	.33755	.15009	-.05443	.00294	.00107	-.01358	.32391	.17764	1.42340
1.080	6.949	.01249	.45310	.15293	-.06760	.00294	.00004	-.01560	.41293	.19953	2.05932
1.079	8.744	.01306	.53324	.15399	-.08499	.00248	.00077	-.01194	.52346	.23590	2.21902
1.080	11.029	.01375	.64359	.15491	-.10229	.00312	.00054	-.01147	.64135	.24241	2.26789
1.080	13.241	.01331	.81397	.15589	-.12145	.00312	.00029	-.00999	.75667	.33400	2.23470
1.078	15.716	.01576	.95029	.15736	-.13439	.00417	.00016	-.00916	.87271	.43564	2.13356
1.074	18.090	.01506	1.04453	.16201	-.15059	.00340	.00011	-.00927	.94061	.49076	1.99416

LA48 TABULATED SOURCE DATA

PAGE 28

LA-48 8-FT TPT 680 RI-0598/139 CRB SPLIT ELEVON

(RH1008)

PARAMETRIC DATA

BETA = .000 ELV-LO = 9.000  
ELV-LI = -80.000 ELV-RI = -80.000  
ELV-RO = -9.000 SDOPLAP = .000  
SPDRK = 25.000

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.997	-1.980	.05703	-.22375	.07116	.07690	.00773	.00122	-.01394	-.22116	.07877	-2.40789
.999	.001	.00626	-.13235	.07324	.07434	.00763	.00101	-.01901	-.13234	.07324	-1.40897
.999	2.131	.00991	-.03161	.07162	.07124	.00784	.00079	-.01664	-.03426	.07339	-.49663
.999	4.413	.01119	.04191	.06351	.06984	.00915	.00063	-.01822	.07652	.07161	1.06965
.999	6.434	.01038	.14034	.03714	.07113	.00932	.00061	-.01706	.17290	.07699	2.24450
.999	8.446	.01209	.27768	.04737	.07324	.00970	.00047	-.01626	.26791	.07877	3.05590
.999	10.612	.00454	.40044	.04763	.06370	.01110	.00179	-.01401	.34995	.11670	3.30728
.999	12.490	.00766	.50703	.04713	.05710	.01028	.00116	-.01491	.49483	.15569	3.11409
.999	14.606	.00970	.63410	.04966	.04787	.00990	.00029	-.01441	.60134	.20699	2.90517
.999	16.314	.00457	.70914	.03784	.04422	.00848	-.00016	-.01249	.66434	.25471	2.60824
.999	18.845	.00960	.85739	.03995	.03197	.00932	-.00066	-.01292	.79242	.33264	2.39222
.997	21.140	.01103	.99579	.03678	.03297	.00822	-.00138	-.01315	.90929	.41208	2.20413
.999	21.934	.01100	1.04101	.03646	.03306	.00707	-.00145	-.01294	.94441	.44136	2.13990

RUN NO. 78/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.079	.00703	-.22616	.07702	.09291	.00992	.00199	-.01296	-.22321	.08518	-2.62063
.900	-.036	.00967	-.12440	.07993	.07834	.00561	.00151	-.01396	-.12432	.07906	-1.57257
.799	2.092	.01190	-.00971	.07736	.07231	.00573	.00105	-.01477	-.01254	.07716	-.16251
.799	4.144	.01219	.10745	.07404	.06604	.00593	.00092	-.01470	.09523	.08113	1.17379
.799	6.433	.01159	.23198	.07230	.05953	.00607	.00101	-.01440	.22332	.09783	2.27265
.799	8.596	.01080	.34235	.07434	.05433	.00632	.00071	-.01291	.32759	.12471	2.62696
.799	10.720	.01102	.45684	.07858	.04564	.00719	.00055	-.01260	.43429	.16219	2.67760
.799	12.494	.01250	.56974	.08212	.04249	.00913	-.00063	-.01062	.53247	.20613	2.59312
.799	15.112	.01256	.66432	.08617	.04411	.00677	-.00090	-.00998	.61998	.25644	2.41415
.799	17.717	.01781	.82166	.09209	.02429	.01013	-.00147	-.01346	.75467	.33777	2.23427
.799	19.310	.01956	.99143	.09455	.02842	.01056	-.00160	-.01542	.80967	.39693	2.09051
.799	21.424	.02157	.96643	.09536	.03411	.00874	-.00278	-.01490	.86491	.44178	1.95757
.799	22.416	.02151	.99099	.09676	.03075	.00798	-.00365	-.01175	.87920	.46734	1.94129

RUN NO. 89/ 0

LA48 TABULATED SOURCE DATA

LA-48 8-FT TPT 640 RI-0898/139 CR8 SPLIT ELEVON

PAGE 29

(RM1008)

PARAMETRIC DATA

BETA = .000 ELV-LO = 9.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -5.000 BDFLAP = .000  
SPDRK = 25.000

RUN NO. 34/ 0

WICH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.990	-2.113	.00634	-2.2220	.08211	.04336	.00208	.00135	-.00998	-.21903	.09025	-2.42688
.990	.000	.01065	-.11066	.08390	.07840	.00157	.00091	-.01241	-.11066	.08390	-1.31892
.990	2.099	.01292	.00677	.08293	.06990	.00175	.00025	-.01249	.00372	.08312	.04480
.949	4.308	.01277	.14568	.08127	.06028	.00207	.00033	-.01264	.13884	.09246	1.90158
.949	6.417	.01231	.24753	.08422	.05401	.00255	.00037	-.01239	.23659	.11136	2.12453
.920	8.670	.01175	.36876	.08755	.04399	.00259	-.00005	-.01064	.35135	.14214	2.47187
.949	10.869	.01212	.48790	.09074	.03403	.00278	-.00075	-.00898	.46195	.18108	2.55104
.931	12.912	.01446	.58171	.09323	.02998	.00440	-.00125	-.00790	.54372	.22281	2.44927
.949	15.071	.01587	.67680	.09573	.02066	.00527	-.00134	-.01092	.62740	.27223	2.30485
.930	17.154	.01739	.78476	.10417	.01862	.00462	-.00129	-.01265	.71913	.33190	2.17261
.930	19.234	.02169	.88229	.10827	.01462	.00510	-.00260	-.01367	.79903	.39099	2.04107
.949	21.490	.02315	.97466	.10699	.02638	.00423	-.00333	-.01763	.86803	.45600	1.90358
.949	22.460	.02324	.99540	.10788	.03886	.00316	-.00488	-.01617	.87868	.47997	1.83068

RUN NO. 48/ 0

WICH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.901	-2.182	.00707	-.21816	.09278	.04960	.00213	.00125	-.01310	-.21447	.10100	-2.12350
.901	-.007	.01099	-.09233	.09483	.07641	.00242	.00188	-.01469	-.09232	.09484	-.97340
.900	2.176	.01126	.03815	.09363	.06390	.00151	.00156	-.01431	.03457	.09501	.06383
.900	4.355	.01299	.13096	.09501	.05968	.00100	.00130	-.01468	.14331	.10620	1.34948
.901	6.524	.01229	.26949	.09798	.04984	.00121	.00086	-.01314	.23682	.12797	2.00529
.900	8.678	.01244	.39246	.10182	.03315	.00163	.00026	-.01152	.37260	.15987	2.33070
.900	10.828	.01416	.51018	.10517	.01894	.00267	-.00079	-.01203	.48134	.19914	2.41710
.900	12.996	.01638	.61336	.10808	.01729	.00468	-.00149	-.00989	.57338	.24314	2.35922
.900	15.129	.01807	.70793	.11208	.01401	.00566	-.00010	-.01392	.65405	.29294	2.23274
.900	17.306	.01844	.81703	.11496	.00995	.00698	-.00127	-.01266	.74594	.35281	2.11400
.904	19.442	.02151	.92049	.11743	.00435	.00553	-.00217	-.01302	.82892	.41712	1.98724
.906	21.594	.02611	1.00366	.11986	.01121	.00380	-.00351	-.01346	.89010	.48092	1.83912
.899	22.995	.02600	1.08935	.12000	.01700	.00265	-.00334	-.01403	.90459	.50565	1.78897

ORIGINAL PAGE IS  
OF POOR QUALITY

LA-48 8-FT 1PT 600 RI-0990/139 ORB SPL17 ELEVEN

(RM1008)

## PARAMETRIC DATA

BETA = .000 ELV-LO = 5.000  
 ELV-L1 = -20.000 ELV-R1 = -20.000  
 ELV-RC = -5.000 BDPLAP = .000  
 SPOBRK = 25.000

RUN NO. 39/ 0

MACH	ALPHA	BETA	CM	CA	CLM	CDL	CYN	CT	CL	CD	L/D
.921	-2.164	.00170	-21376	.09991	.09291	.00241	.00234	-.01374	-.20983	.10791	-1.94430
.920	.021	.01002	-.09049	.10136	.07672	.00249	.00242	-.01563	-.09032	.10135	-.79449
.920	2.199	.01176	.04336	.10137	.06302	.00244	.00191	-.01359	.04146	.10303	.40236
.920	4.361	.01229	.15694	.10213	.09914	.00244	.00152	-.01485	.14876	.11377	1.30754
.920	6.590	.01232	.24093	.10365	.04822	.00213	.00121	-.01415	.26727	.13502	1.97949
.919	8.704	.01330	.40353	.10706	.02944	.00156	.00099	-.01290	.38264	.16649	2.29295
.920	10.993	.01446	.52339	.11094	.01433	.00249	.00010	-.01259	.49300	.20414	2.37821
.919	13.029	.01770	.63778	.11282	.00712	.00403	-.00163	-.01030	.99592	.25371	2.34485
.919	17.341	.01669	.73441	.11680	.00154	.00337	-.0026	-.01364	.67823	.30489	2.22454
.919	17.341	.01690	.84410	.11915	-.00476	.00262	-.00133	-.01256	.77023	.36332	2.10435
.920	19.511	.02282	.94578	.12163	-.01116	.00260	-.00231	-.01329	.85044	.43053	1.97629
.919	21.633	.02707	1.02225	.12399	-.00296	.00329	-.00332	-.01531	.90453	.49212	1.83902
.917	22.674	.03613	1.05191	.12448	.00632	.00204	-.00369	-.01263	.92317	.51920	1.77407

RUN NO. 29/ 0

MACH	ALPHA	BETA	CM	CA	CLM	CDL	CYN	CT	CL	CD	L/D
.930	-2.159	.00778	-21324	.11136	.10610	.00406	.00338	-.01645	-.21090	.11941	-1.76622
.931	.028	.01095	-.07786	.11303	.04363	.00342	.00319	-.01843	-.07794	.11349	-.64429
.931	2.221	.01164	.06112	.11433	.06266	.00256	.00206	-.01403	.05665	.11661	.48577
.931	4.407	.01139	.14469	.11456	.04903	.00231	.00270	-.01734	.17932	.12372	1.39317
.930	6.576	.01224	.31124	.11530	.03664	.00326	.00240	-.01719	.29594	.15018	1.97043
.920	8.753	.01160	.43799	.11755	.01811	.00287	.00143	-.01499	.41500	.18283	2.26944
.931	10.945	.01274	.57026	.11910	-.00246	.00402	.00147	-.01491	.53727	.22520	2.39571
.949	13.129	.01355	.69723	.11975	-.01275	.00326	-.00027	-.01047	.64207	.27270	2.35448
.930	15.277	.01696	.79307	.12300	-.02625	.00304	-.00120	-.01222	.73649	.32867	2.24046
.949	17.417	.01937	.89423	.12586	-.03634	.00254	-.00172	-.01130	.91555	.39778	2.10326
.930	19.603	.02609	1.01397	.13070	-.04451	.00376	-.00348	-.01194	.91135	.46331	1.96703
.931	21.789	.04463	1.10679	.13567	-.05329	.00477	-.00741	-.02014	.97735	.53679	1.82073
.930	22.759	.04971	1.13592	.13513	-.01716	.00165	-.00664	-.02373	.99560	.56315	1.76790

LA46 TABULATED SOURCE DATA

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LA-46 9-FT TPT 680 RI-0898/139 GRB SPLIT ELEWON

(RH1008)

PARAMETRIC DATA

BETA = .000 ELV-LO = 5.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -5.000 DDFLAP = .000  
SPDRK = 25.000

RUN NO. 18/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CEL	CYN	CY	CL	CD	L/D
.940	-2.224	.00819	-.21279	.13127	.10922	.00406	.00320	-.01606	-.21373	.13967	-1.53026
.942	.066	.01044	-.07616	.13596	.04823	.00396	.00312	-.01772	-.07632	.13987	-.56169
.942	2.243	.01270	-.06242	.13736	.06472	.00331	.00324	-.01914	.03727	.13977	.40975
.941	4.430	.01171	.14992	.13402	.04451	.00366	.00357	-.01996	.17470	.15227	1.17333
.940	7.439	.01015	.37226	.14154	.02170	.00382	.00331	-.01431	.35040	.14855	1.46035
.940	9.044	.01077	.47164	.14479	.03488	.00314	.00292	-.01640	.44300	.21715	2.04007
.942	10.996	.01068	.59350	.14949	-.01741	.00345	.00264	-.01644	.55409	.25995	2.13151
.979	13.190	.02056	.72601	.14632	-.03417	.00336	-.00134	-.01270	.67363	.30784	2.14423
.941	15.151	.02396	.85012	.14937	-.05004	.00362	-.00179	-.01415	.74025	.36910	2.11395
.940	17.534	.01613	.99799	.15232	-.05227	.00279	-.00061	-.01144	.86121	.43107	1.99746
.940	19.757	.01564	1.06466	.15349	-.05901	.00212	-.00030	-.01219	.95011	.50434	1.44344

RUN NO. 19/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CEL	CYN	CY	CL	CD	L/D
1.079	-2.165	.00975	-.19700	.15905	.10007	.00446	.00292	-.01991	-.19045	.16634	-1.14704
1.040	-.043	.01147	-.06991	.15979	.07943	.00441	.00314	-.01809	-.06979	.15944	-.43660
1.090	2.213	.01227	.06746	.16007	.05623	.00393	.00339	-.01914	.06163	.16257	.37979
1.079	4.311	.01176	.19232	.16436	.03607	.00366	.00349	-.02031	.17982	.17437	1.00703
1.079	6.715	.01145	.33247	.16744	.01425	.00362	.00405	-.02334	.31096	.20361	1.51239
1.040	8.961	.01031	.46300	.16454	-.00731	.00302	.00322	-.01775	.43110	.23460	1.40640
1.079	10.943	.01145	.57636	.16716	-.02470	.00304	.00225	-.01554	.54377	.27542	1.97149
1.041	13.224	.01346	.71667	.16325	-.04664	.00343	.00205	-.01326	.66030	.32291	2.04443
1.042	15.390	.01590	.83432	.15956	-.05340	.00391	.00172	-.01222	.76206	.37525	2.03079
1.078	17.641	.01693	.93749	.16310	-.06041	.00234	-.00054	-.01126	.84367	.44013	1.91645

LA46 TABULATED SOURCE DATA

PAGE 32

LA-46 8-FT TPT 600 RI-0898/139 ORB SPLIT ELEVON

(RH1009)

PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -10.000 SDFLAP = .000  
 SPOBRK = 25.000

RUN NO. 79/ 0

WICH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.136	.00655	-.22316	.07400	.07274	.01451	.00132	-.01635	-.22224	.04234	-2.69906
.800	-.134	.01291	-.13274	.07625	.06594	.01492	.00106	-.01900	-.13256	.07656	-1.75134
.799	2.105	.01296	-.02155	.07507	.06623	.01540	.00099	-.02169	-.02429	.07423	-.32729
.799	4.061	.01335	.07501	.07535	.06376	.01654	.00094	-.02240	.06982	.07564	.92263
.794	6.300	.01349	.14254	.06137	.06420	.01794	.00079	-.02270	.17470	.04103	2.15607
.799	8.820	.01256	.30116	.04944	.06599	.01463	.00043	-.02070	.29028	.04445	3.07327
.794	10.479	.01137	.40420	.04736	.06754	.02020	.00043	-.02177	.34444	.12004	3.23422
.799	12.632	.01103	.52441	.05004	.05245	.02092	.00174	-.02177	.50116	.16364	3.06255
.794	14.439	.01243	.69222	.05315	.04464	.01995	.00045	-.02004	.61492	.21750	2.42204
.794	16.764	.01244	.73725	.06323	.04065	.01432	-.00063	-.01744	.68764	.27519	2.51724
.799	18.495	.01411	.86557	.06305	.03149	.01441	-.00144	-.01734	.79451	.33996	2.34467
.794	20.904	.01463	.97566	.06031	.03194	.01729	-.00197	-.01722	.44446	.40446	2.29030
.794	21.952	.01409	1.03919	.05937	.03243	.01546	-.00236	-.01506	.94154	.44372	2.12270

RUN NO. 69/ 0

WICH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.136	.00928	-.23350	.04034	.04444	.01150	.00144	-.01460	-.23034	.04922	-2.54163
.801	.774	.01149	-.11634	.04247	.07756	.01160	.00142	-.01541	-.11644	.04272	-1.40770
.800	2.073	.01520	-.00673	.04156	.07032	.01214	.00100	-.01742	-.00964	.04127	-1.11910
.794	4.267	.01619	.11573	.07791	.06127	.01246	.00079	-.01424	.10961	.04631	1.27000
.799	6.442	.01531	.24407	.07593	.05941	.01354	.00150	-.01496	.23791	.10344	2.29947
.799	8.757	.01470	.36941	.07743	.04247	.01316	.00040	-.01691	.35371	.13243	2.66294
.794	11.640	.01505	.51497	.04315	.05556	.01543	.00043	-.01540	.49132	.19615	2.64043
.794	12.994	.01647	.54494	.04601	.03407	.01743	-.00076	-.01424	.55064	.21534	2.55637
.799	14.444	.01616	.66993	.04407	.03634	.01491	-.00141	-.01209	.62436	.23411	2.41946
.794	17.190	.01976	.80746	.04440	.01947	.01696	-.00146	-.01464	.74349	.32441	2.26113
.799	19.219	.02237	.89031	.04402	.02174	.01761	-.00216	-.01663	.80443	.34561	2.09632
.794	21.364	.02253	.97057	.04993	.03431	.01675	-.00262	-.01577	.85747	.44554	1.94222
.799	22.399	.02306	.99434	.10193	.04419	.01617	-.00349	-.01345	.84051	.47317	1.46047

LA48 TABULATED SOURCE DATA

LA-48 9-FT TPT 680 RI-5092/139 ORB SPLIT ELEVON

(RM1009)

PAGE 33

PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -10.000 BOPLAP = .000  
SPORRK = 25.000

RUN NO. 99/ 0

WICH	ALPHA	BETA	CN	CA	CLM	COL	CYN	CY	CL	CO	L/D
.991	-2.216	.00914	-.23373	.09407	.04426	.00755	.00141	-.01233	-.23031	.09304	-2.47537
.992	-.011	.01201	-.11062	.09643	.07749	.00790	.00106	-.01492	-.11061	.08645	-1.27946
.993	2.090	.01559	.01135	.09347	.06624	.00866	.00044	-.01562	.00022	.08622	.09335
.994	4.401	.01712	.13003	.09412	.05220	.00969	.00061	-.01746	.14313	.09334	1.50061
.995	6.876	.01536	.27926	.08648	.04219	.01095	.00074	-.01624	.26731	.11436	2.23944
.996	9.394	.01599	.42436	.09116	.03236	.01106	.00004	-.01446	.40379	.15920	2.53635
.997	10.747	.01622	.57322	.09409	.02462	.01201	-.00090	-.01349	.47653	.19710	2.54690
.998	12.940	.01487	.60501	.09765	.02054	.01467	-.00171	-.01245	.56752	.23104	2.45641
.999	15.166	.01431	.63437	.10245	.02371	.01362	-.00190	-.01274	.64324	.26092	2.24946
.990	17.371	.01972	.60143	.10752	.01607	.01293	-.00146	-.01441	.73274	.34184	2.14335
.991	19.107	.02327	.44163	.10937	.01500	.01310	-.00201	-.01363	.79725	.33214	2.03306
.992	21.406	.02481	.91772	.10944	.02164	.01220	-.00357	-.01352	.47017	.45915	1.99517
.993	22.457	.02541	1.00414	.11134	.03414	.01155	-.00512	-.00999	.40544	.40637	1.92011

RUN NO. 49/ 0

WICH	ALPHA	BETA	CN	CA	CLM	COL	CYN	CY	CL	CO	L/D
.990	-2.177	.00970	-.22343	.09579	.00344	.00719	.00215	-.01475	-.22203	.10360	-2.14347
.991	-.034	.01146	-.10397	.09680	.04324	.00741	.00263	-.01765	-.10392	.09666	-1.07505
.992	.219	.01377	-.04215	.09696	.07676	.00742	.00194	-.01771	-.00252	.09665	-.95344
.993	2.216	.01635	.04127	.09678	.06136	.00825	.00149	-.01963	.03750	.09430	.38143
.994	4.333	.01767	.17113	.09714	.04596	.01014	.00196	-.02244	.16330	.10943	1.40640
.995	6.466	.01622	.24294	.10044	.03912	.00944	.00141	-.01659	.26046	.13171	2.04439
.996	8.414	.01725	.41661	.10506	.02273	.01042	.00001	-.01495	.34359	.16764	2.33321
.997	10.939	.01940	.53534	.10414	.00779	.01233	-.00044	-.01554	.30594	.20779	2.43069
.998	13.120	.02005	.63124	.11071	.00446	.01343	-.00200	-.01234	.30041	.25111	2.34024
.999	15.295	.01794	.72694	.11335	.00646	.01014	-.00102	-.01174	.36041	.30304	2.21365
.990	17.416	.02104	.45074	.11419	-.00055	.00974	-.00234	-.01174	.76172	.36434	2.09072
.991	19.569	.02367	.93674	.12135	-.00179	.01004	-.00337	-.01074	.44199	.42410	1.96640
.992	21.641	.02444	1.01347	.12339	.00332	.01039	-.00455	-.01244	.49445	.44445	1.93344
.993	22.940	.02732	1.03042	.12323	.01146	.00945	-.00434	-.01241	.51095	.51227	1.77425

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OF POOR QUALITY



LA46 TABULATED SOURCE DATA

PAGE 34

LA-46 8-FT TPT 640 RI-0692/139 ORB SPLIT ELEVON

(RM1009)

PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -10.000 BDFLAP = .000  
SMOOR = 25.000

RUN NO. 39/ 0

WACH	ALPHA	BETA	CM	CA	CLM	COL	CYN	CY	CL	CD	L/D
.920	-2.170	.0044	-22602	.10227	.10037	.00742	.00263	-.01499	-.22199	.11175	-2.00432
.920	.013	.01313	-.09945	.10335	.00071	.00791	.00269	-.01905	-.09049	.10331	-.77579
.921	2.204	.01390	.04694	.10343	.00061	.00416	.00260	-.02076	.04296	.10316	.40490
.920	4.363	.01674	.17673	.10447	.04765	.00961	.00226	-.02041	.16424	.11401	1.42565
.920	6.521	.01622	.29114	.10702	.03917	.01015	.00140	-.01794	.27714	.13940	1.94407
.920	8.715	.01676	.41553	.10947	.02484	.00949	.00050	-.01592	.39415	.17117	2.30269
.920	10.491	.01924	.54169	.11334	.00372	.01232	.00011	-.01674	.51032	.21365	2.34933
.919	13.049	.02050	.64343	.11474	.00047	.01234	-.00194	-.01164	.60130	.25717	2.33416
.921	15.213	.01732	.74512	.11945	-.00461	.00490	-.00076	-.01264	.67736	.31117	2.20937
.920	17.346	.02109	.85502	.12226	-.01540	.00476	-.00259	-.01066	.77777	.37102	2.09629
.921	19.509	.02634	.95612	.12513	-.01733	.00970	-.00342	-.01147	.85944	.43724	1.96560
.918	21.647	.02479	1.02475	.12749	-.00691	.00441	-.00433	-.01292	.90916	.49400	1.82565
.917	22.363	.02459	1.05436	.12741	-.00305	.00474	-.00409	-.01362	.92644	.51935	1.74343

RUN NO. 29/ 0

WACH	ALPHA	BETA	CM	CA	CLM	COL	CYN	CY	CL	CD	L/D
.931	-2.171	.00967	-23136	.11901	.11445	.01039	.00336	-.01792	-.22644	.12369	-1.43397
.931	.024	.01313	-.04610	.11707	.04466	.01072	.00343	-.02214	-.04615	.11704	-.73603
.931	2.215	.01635	.05644	.11722	.06371	.01051	.00307	-.02245	.05191	.11931	.43504
.990	4.407	.01624	.19500	.11812	.04362	.01124	.00320	-.02280	.14535	.13275	1.39622
.990	6.597	.01699	.31455	.11973	.03043	.01140	.00272	-.02197	.30277	.15443	1.94424
.931	8.757	.01637	.44747	.12174	.01102	.01110	.00190	-.01911	.42411	.14451	2.24076
.949	10.935	.01664	.57747	.12154	-.00933	.01212	.00102	-.01682	.54377	.22949	2.37442
.932	13.133	.01624	.69661	.12344	-.02041	.01090	-.00046	-.01094	.65034	.27433	2.33447
.949	15.271	.02104	.79749	.12555	-.02909	.00921	-.00236	-.01126	.73627	.33116	2.22332
.932	17.425	.02317	.90496	.13002	-.04421	.00799	-.00349	-.00914	.82450	.39976	2.04404
.990	19.599	.02721	1.01677	.13344	-.04417	.00430	-.00476	-.00911	.91309	.46641	1.95601
.990	21.744	.03041	1.11219	.13500	-.03564	.01064	-.00703	-.01179	.94114	.54144	1.81052
.990	22.711	.03221	1.14259	.13470	-.02273	.00773	-.00436	-.02074	1.00045	.56904	1.73401

# LA46 TABULATED YAWCE DATA

PAGE 33

LA-46 R-FT 101 040 R1-0495/139 ORG SPLIT ELEVON

(RM1009)

## PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
 ELV-HI = -20.000 ELV-RI = -20.000  
 ELV-RO = -10.000 SDFLAP = .000  
 SPOBRK = 25.000

RUN NO. 19/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.979	-2.196	.00032	-.27937	.13344	.11597	.01117	.00414	-.01974	-.22207	.14245	-.155493
.941	.092	.01405	-.04339	.13421	.09068	.01091	.00379	-.02241	-.07981	.13404	-.07532
.941	2.280	.01443	.05409	.14004	.06710	.01091	.00364	-.02242	.01132	.14226	.13619
.940	4.434	.01471	.19345	.14111	.04447	.01266	.00470	-.02573	.14195	.15566	1.16491
.979	6.672	.01410	.32923	.14365	.02493	.01242	.00456	-.02440	.13103	.14093	1.71506
.940	8.477	.01370	.45474	.14480	.00154	.01151	.00404	-.02307	.43627	.21444	1.99446
.942	11.151	.01445	.61074	.15373	-.02576	.01142	.00316	-.02176	.16944	.26495	2.11742
.940	13.140	.02424	.75031	.15720	-.04266	.01077	.00110	-.01634	.67583	.31275	2.16479
.941	15.651	.02604	.87424	.15320	-.05866	.01012	-.00233	-.01427	.14054	.34337	2.04915
.940	17.715	.01925	.96453	.14521	-.09564	.00915	-.00166	-.01002	.07537	.44256	1.97799
.979	19.447	.01454	1.07754	.15623	-.06431	.00922	-.00153	-.01005	.06006	.41262	1.97245

RUN NO. 9/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CT	CL	CD	L/D
.979	-2.233	.01117	-.20536	.16379	.10424	.01120	.00354	-.01491	-.11905	.14094	-1.16422
.941	-.024	.01212	-.17544	.16339	.04416	.01105	.00292	-.02032	-.07541	.16342	-.46145
.940	.754	.01469	-.02690	.16402	.00373	.01074	.00342	-.02102	-.02906	.16365	-.17795
1.000	2.333	.01575	.07447	.16511	.05907	.01074	.00376	-.02202	.05764	.16400	.40244
1.041	4.464	.01729	.20306	.16734	.03246	.01146	.00505	-.02034	.14042	.16353	1.03719
1.040	6.732	.01506	.33565	.17134	.00337	.01142	.00522	-.02529	.31424	.20352	1.49406
1.040	8.466	.01222	.46501	.17235	-.01171	.01026	.00471	-.02392	.43249	.24196	1.74909
1.040	11.077	.01421	.59020	.16957	-.03415	.01046	.00319	-.02016	.55539	.28147	1.97349
1.042	13.142	.01476	.71490	.16425	-.09546	.01064	.00133	-.01602	.66009	.32456	2.02443
1.079	15.364	.01555	.83575	.16390	-.06214	.01131	.00034	-.01194	.76214	.37047	2.07321
1.077	18.047	.01941	.96516	.16675	-.06745	.00427	-.00101	-.00901	.86603	.45754	1.89240

## LA48 TABULATED SOURCE DATA

PAGE 36

LA-48 8-FT TPT 680 RI-0898/139 ORB SPLIT ELEVON

(PH1010)

## PARAMETRIC DATA

BETA = .000 ELV-LO = -15.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -25.000 EDPLAP = .000  
SPOBRK = 25.000

RUN NO. 80/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.598	-2.107	.00251	-.32593	.07666	.12484	.00392	.00301	-.01270	-.32288	.08879	-3.63648
.600	.047	.00412	-.21782	.07961	.12024	.00372	.00255	-.01364	-.21789	.07943	-2.74302
.599	1.982	.00576	-.12165	.07857	.11620	.00352	.00218	-.01492	-.12429	.07432	-1.67245
.599	4.171	.00688	-.01000	.07336	.11290	.00346	.00166	-.01504	-.01531	.07244	-.21129
.599	6.799	.00531	.11894	.06215	.11283	.00237	.00102	-.01093	.11074	.07579	1.46113
.599	9.327	.00580	.19433	.05513	.11259	.00169	.00088	-.01117	.19430	.08269	2.22976
.599	10.927	.00489	.32335	.05201	.10297	-.00042	.00056	-.00890	.30841	.11021	2.79835
.598	12.638	.00466	.43828	.05623	.09624	-.00281	.00023	-.00766	.40756	.14901	2.73511
.598	14.646	.00527	.54019	.05629	.09425	-.00195	.00017	-.00844	.50841	.19103	2.66140
.597	16.851	.00500	.63878	.06314	.09042	-.00248	.00004	-.00773	.59305	.24560	2.41467
.598	18.726	.00615	.74401	.06411	.08783	-.00017	.00000	-.00959	.68404	.29957	2.28339
.597	20.982	.00668	.87282	.06235	.08751	.00227	.00003	-.01055	.79262	.37075	2.13789
.597	22.209	.00694	.94638	.06127	.08752	.00347	.00079	-.01123	.85301	.41445	2.05819

RUN NO. 70/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.798	-2.204	.00079	-.33504	.08436	.14021	.00365	.00408	-.01304	-.33155	.09718	-3.41172
.801	-.070	.00405	-.22059	.08649	.13174	.00386	.00352	-.01451	-.22048	.08676	-2.34126
.799	1.963	.00616	-.10748	.08494	.12364	.00357	.00298	-.01496	-.11033	.08121	-1.35859
.798	4.340	.00721	.02609	.08032	.11345	.00253	.00248	-.01450	.01993	.08207	.24287
.799	6.275	.00668	.14565	.07866	.09966	.00091	.00210	-.01285	.13717	.09422	1.45584
.799	8.281	.00721	.26498	.07881	.08510	-.00136	.00093	-.00790	.25482	.11673	2.18350
.799	10.493	.00754	.39367	.08141	.07251	-.00287	.00022	-.00814	.37226	.15174	2.45333
.799	12.915	.00900	.51953	.08473	.06568	-.00374	-.00101	-.00598	.48745	.19870	2.45314
.798	15.135	.00916	.62966	.08785	.06325	-.00457	-.00157	-.00455	.58488	.24920	2.34709
.798	17.047	.01333	.73749	.09146	.05566	-.00220	-.00177	-.00832	.67827	.30364	2.23380
.797	19.235	.01644	.83290	.09486	.05322	-.00003	-.00182	-.01156	.75515	.36397	2.07478
.798	21.493	.02003	.91457	.10007	.05229	-.00439	-.00347	-.01054	.81431	.42820	1.90170
.799	22.366	.02149	.93134	.10214	.08440	-.00521	-.00403	-.01056	.82241	.44885	1.83225

LA48 TABULATED SOURCE DATA

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LA-48 9-FT TPT 640 RI-0892/139 ORB SPLY ELEVON

(RH1010)

PARAMETRIC DATA

BETA = .000 ELV-LO = -15.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -25.000 PDFLAP = .000  
 SPOSRK = 25.000

RUN NO. 60/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.849	-2.195	.00273	-.32790	.08726	.14456	.00213	.00302	-.01156	-.32432	.09975	-3.25122
.851	.004	.00090	-.20366	.08495	.13249	.00216	.00263	-.01333	-.20367	.08492	-2.29042
.851	2.164	.00944	-.07690	.08734	.11959	.00163	.00145	-.01413	-.08014	.08442	-.94936
.890	4.376	.00932	.06657	.08584	.10144	.00054	.00159	-.01345	.05932	.09067	.65426
.890	6.452	.00932	.19053	.08715	.08476	-.00107	.00109	-.01144	.17933	.10401	1.66214
.849	8.843	.00961	.32370	.09002	.06752	-.00276	.00024	-.00956	.30947	.13795	2.23619
.849	10.746	.01032	.44213	.09390	.05636	-.00359	-.00061	-.00771	.41674	.17494	2.39161
.890	13.164	.01141	.56619	.09737	.04602	-.00406	-.00170	-.00599	.52914	.22375	2.36447
.849	15.316	.01375	.66610	.10031	.04414	-.00436	-.00132	-.00543	.61595	.27269	2.25979
.849	17.251	.01621	.75716	.10494	.04555	-.00513	-.00161	-.00622	.64530	.32269	2.12372
.849	19.299	.02044	.83442	.10444	.05051	-.00413	-.00303	-.00559	.75545	.37954	1.99124
.890	21.363	.02403	.91449	.11229	.06439	-.00373	-.00373	-.01225	.91112	.43745	1.45251
.849	22.749	.02654	.93422	.11502	.08319	-.00469	-.00474	-.01101	.91707	.46733	1.74837

RUN NO. 50/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.901	-2.244	.00279	-.33206	.10020	.15963	.00251	.00342	-.01347	-.32749	.11313	-2.49433
.900	-.090	.00172	-.20146	.10000	.14193	.00210	.00322	-.01626	-.20170	.10632	-2.01064
.901	2.094	.01103	-.06339	.09934	.12246	.00153	.00251	-.01471	-.00696	.03637	-.59056
.900	4.323	.01067	.08167	.09447	.09997	.00043	.00201	-.01517	.07401	.10435	.70923
.900	6.534	.01037	.22359	.10149	.07921	-.00119	.00099	-.01205	.21237	.12650	1.60043
.900	8.679	.01190	.35400	.10495	.05795	-.00279	.00020	-.01053	.33411	.15715	2.12496
.899	10.820	.01243	.47494	.10749	.04137	-.00476	-.00079	-.00941	.41624	.19512	2.24701
.902	13.076	.01532	.57525	.11244	.04493	-.00597	-.00147	-.00774	.53490	.24006	2.22777
.899	15.302	.01541	.67213	.11635	.04439	-.00369	-.00124	-.00993	.61755	.24979	2.13099
.899	17.254	.01674	.77200	.11111	.03973	-.00329	-.00153	-.01142	.70199	.34249	2.04967
.899	19.396	.01975	.87342	.11111	.03463	-.00264	-.00205	-.01174	.79412	.45409	1.94045
.900	21.569	.02369	.95172	.12330	.04950	-.00199	-.00259	-.01394	.93902	.46639	1.70495
.899	22.554	.02354	.97041	.12991	.06024	-.00233	-.00224	-.01556	.94427	.48464	1.73594

ORIGINAL FOUR IS  
 OF POOR QUALITY

LA-48 9-FT TPT 600 RI-0898/139 CRB SPLIT ELEVEN

(PH1010)

## PARAMETRIC DATA

BETA = .000 ELV-LO = -15.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -25.000 BDFLAP = .000  
 SPOBCK = 25.000

RUN NO. 40/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.920	-2.264	.00237	-.34100	.10739	.17105	.00216	.00426	-.01477	-.33649	.12078	-2.78595
.921	-.051	.00674	-.20564	.10769	.15164	.00228	.00352	-.01614	-.20555	.10788	-1.90541
.923	2.153	.00932	-.05908	.10601	.12716	.00149	.00246	-.01639	-.06202	.10375	-.59778
.920	4.313	.01082	.08459	.10639	.10490	.00068	.00227	-.01599	.07635	.11245	.67891
.919	6.499	.01053	.22196	.10790	.08901	-.00079	.00139	-.01303	.20832	.13233	1.57425
.920	8.690	.01246	.35357	.11093	.06196	-.00335	.00051	-.01205	.33305	.16312	2.04178
.919	10.841	.01397	.48591	.11374	.03909	-.00448	-.00044	-.01057	.45595	.20311	2.24436
.920	13.011	.01563	.58621	.11708	.03867	-.00442	-.00196	-.00751	.54480	.24605	2.21418
.920	15.188	.01545	.69772	.12123	.03203	-.00220	.00000	-.01338	.64159	.29978	2.14020
.918	17.360	.01611	.80371	.12292	.02142	-.00246	-.00111	-.01080	.75234	.35772	2.04726
.920	19.487	.01913	.91109	.12557	.01813	-.00237	-.00161	-.01210	.81757	.42250	1.93506
.919	21.619	.02408	.98184	.12775	.03138	-.00179	-.00243	-.01435	.86570	.48051	1.80165
.918	22.593	.02294	1.07234	.13066	.04540	-.00329	-.00308	-.01156	.87541	.50579	1.73078

RUN NO. 30/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.951	-2.207	.00241	-.33810	.12071	.18279	.00170	.00418	-.01452	-.33320	.13364	-2.49331
.952	-.023	.00701	-.19577	.12161	.15943	.00176	.00385	-.01724	-.19572	.12109	-1.80832
.951	2.164	.00563	-.04679	.11973	.13215	.00134	.00351	-.01833	-.05128	.11788	-.43502
.951	4.363	.01002	.10417	.11940	.10346	.00041	.00344	-.01846	.08479	.12698	.74647
.950	6.562	.01108	.24286	.12105	.08123	-.00129	.00255	-.01669	.22744	.14802	1.53649
.950	8.735	.01111	.38133	.12208	.05578	-.00271	.00139	-.01329	.33837	.17858	2.00679
.949	10.914	.01036	.51656	.12405	.03119	-.00283	.00139	-.01274	.48373	.21961	2.20271
.949	13.092	.01164	.63369	.12541	.02228	-.00227	.00025	-.01043	.58881	.26569	2.21617
.951	15.242	.01988	.75414	.12759	.00466	-.00199	-.00137	-.01234	.68407	.32136	2.15977
.951	17.434	.01795	.87331	.13030	-.01397	-.00178	-.00197	-.00930	.79415	.38596	2.05759
.950	19.611	.02117	.98404	.13293	-.01767	-.00126	-.00288	-.00934	.88234	.45549	1.93712
.950	21.790	.04407	1.07662	.13769	.00356	-.00023	-.00396	-.02050	.94959	.52750	1.70826
.951	22.697	.04604	1.09956	.13909	.01354	-.00231	-.00357	-.02363	.96112	.55166	1.74224

LA49 TABULATED SOURCE DATA

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LA-49 8-FT TPT 680 RI-0892/139 ORB SPLT ELEVON

(RH1010)

PARAMETRIC DATA

BETA = .000 ELV-LO = -15.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -25.000 DOFLAP = .000  
SPDRK = 25.000

RUN NO. 20/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.979	-2.235	.00299	-.33601	.14328	.14553	.00213	.00452	-.01394	-.33017	.13624	-2.11273
.981	-.104	.00691	-.19779	.14439	.16159	.00194	.00445	-.01479	-.19753	.14475	-1.36459
.983	2.199	.00946	-.03992	.14289	.13106	.00046	.00472	-.02192	-.04537	.14126	-.32117
.985	4.245	.01063	.09755	.14405	.10537	.00017	.00421	-.02103	.04661	.15087	.57410
.987	6.351	.01036	.24626	.14710	.07967	-.00046	.00330	-.01911	.22787	.17423	1.30790
.989	8.787	.01014	.39221	.14991	.05171	-.00210	.00201	-.01415	.36471	.20806	1.75248
.991	10.941	.00915	.53058	.15317	.02304	-.00219	.00214	-.01349	.49144	.23104	1.95490
.993	13.453	.01716	.67752	.15191	.00359	-.00147	.00001	-.01392	.62358	.30337	2.04204
.995	15.331	.01909	.79564	.15314	-.01132	-.00114	-.00035	-.01450	.72631	.35999	2.01734
.997	17.564	.01213	.97711	.15661	-.01919	-.00126	.00055	-.01165	.81756	.42305	1.93256
.999	19.742	.01032	1.02161	.15612	-.02696	-.00159	.00134	-.01255	.90492	.49203	1.84710

RUN NO. 10/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.079	-2.299	.00535	-.30227	.17080	.16804	.00181	.00425	-.01666	-.29514	.14259	-1.61664
1.080	-.051	.00799	-.16020	.17044	.13994	.00123	.00460	-.01965	-.17062	.17062	-.93405
1.081	2.149	.01014	-.01568	.16945	.11201	.00040	.00419	-.02370	-.02203	.16914	-.13027
1.082	4.360	.01046	.12336	.17374	.04494	-.00023	.00366	-.01496	.10942	.14261	.65136
1.083	6.766	.01068	.27142	.17439	.03690	-.00074	.00320	-.01749	.24491	.20316	1.13005
1.084	8.775	.00944	.39455	.17790	.03355	-.00157	.00276	-.01557	.36279	.23690	1.53724
1.085	10.944	.00954	.53222	.17422	.00667	-.00211	.00194	-.01316	.44927	.27243	1.79595
1.086	13.229	.00977	.65031	.16907	-.00473	-.00204	.00150	-.01110	.57469	.31591	1.91471
1.087	15.409	.01005	.77371	.16423	-.01447	-.00145	.00145	-.01255	.70226	.36391	1.80379
1.088	18.036	.01232	.91702	.16670	-.03355	-.00066	.00041	-.01070	.82035	.44242	1.85423

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LAAS TABULATED SOURCE DATA

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LA-48 9-FT TPT 890 RI-0898/139 CRB SPL17 ELEVON

(RH1011)

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
ELV-LI = -20.000 ELV-RI = -20.000  
ELV-RO = -30.000 SDFLAP = .000  
SPDRK = 25.000

RUN NO. 98/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.154	.00193	-.31291	.07426	.11628	.00700	.00390	-.01423	-.30990	.08999	-3.00076
.001	-.054	.00395	-.20969	.07669	.11148	.00691	.00323	-.01526	-.20981	.07689	-2.72614
.002	2.004	.00562	-.10597	.07566	.10793	.00646	.00272	-.01631	-.10456	.07190	-1.50941
.003	4.116	.00615	-.00597	.07091	.10564	.00592	.00234	-.01596	-.01094	.07030	-.15565
.004	6.234	.00573	.00781	.06224	.10679	.00457	.00199	-.01401	.09049	.07250	1.24795
.005	8.311	.00542	.20159	.05237	.10400	.00295	.00149	-.01241	.19149	.08095	2.37039
.006	10.424	.00490	.32361	.03929	.09797	.00039	.00147	-.01105	.30917	.10401	2.46232
.007	12.513	.00494	.43968	.05318	.09052	.00045	.00066	-.00933	.41772	.14719	2.93421
.008	14.620	.00531	.55147	.05593	.08612	.00266	.00092	-.01073	.52968	.19390	2.73165
.009	16.709	.00547	.65180	.06114	.08199	.00168	.00080	-.01008	.60670	.24596	2.46669
.010	18.816	.00609	.77392	.06227	.07801	.00475	.00060	-.01115	.71237	.30955	2.35879

RUN NO. 99/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.237	.00186	-.32241	.08258	.13373	.00574	.00551	-.01473	-.31895	.09510	-3.35363
.001	-.071	.00097	-.20579	.08430	.12439	.00643	.00495	-.01592	-.20564	.08455	-2.43263
.002	2.055	.00448	-.09144	.08265	.11679	.00603	.00420	-.01694	-.09434	.07932	-1.18942
.003	4.232	.00611	.03292	.07863	.10846	.00492	.00361	-.01690	.02663	.08082	.32949
.004	6.359	.00507	.16156	.07694	.09497	.00219	.00293	-.01377	.15204	.09437	1.61121
.005	8.546	.00563	.29108	.07803	.08097	-.00112	.00194	-.01107	.27625	.12042	2.29415
.006	10.681	.00639	.40776	.08052	.07095	-.00307	.00079	-.00879	.38577	.15469	2.49377
.007	12.842	.00779	.51433	.08326	.06768	-.00469	.00024	-.00799	.48296	.19549	2.47749
.008	14.970	.00836	.61439	.08684	.06962	-.00692	-.00152	-.00384	.57109	.24264	2.35367
.009	17.136	.01304	.73933	.09061	.05820	-.00333	-.00167	-.00490	.67981	.30443	2.23311
.010	19.254	.01484	.83996	.09498	.05648	-.00394	-.00134	-.01133	.75789	.36533	2.07448
.011	21.373	.01803	.91603	.09835	.06914	-.00341	-.00241	-.01162	.81719	.42543	1.92044
.012	22.249	.01962	.93729	.10001	.08032	-.00384	-.00294	-.01193	.82933	.44803	1.85106

LA46 TABULATED SOURCE DATA

LA-46 8-FT IPT 640 RI-D892/139 CRB SPL17 ELEVEN

(RH1011)

PAGE 41

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -30.000 90FLAP = .000  
 SPOBRK = 25.000

RUN NO. 92/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CPL	CYN	CY	CL	CD	L/D
.90	-2.249	.00012	-.31794	.08666	.13951	.00912	.00519	-.01370	-.31429	.09907	-3.17248
.90	-.079	.00460	-.19719	.08830	.12863	.00780	.00453	-.01178	-.19707	.08857	-2.22507
.91	2.099	.00449	-.06908	.08673	.11558	.00690	.00351	-.01826	-.07221	.08414	-.85820
.91	4.258	.00552	.06338	.08520	.09849	.00476	.00274	-.01702	.05688	.08967	.63428
.92	6.432	.00910	.20792	.08681	.08149	.00162	.00195	-.01418	.18993	.10877	1.74805
.93	8.591	.00969	.32557	.08898	.06634	-.00119	.00078	-.01126	.30862	.13662	2.25903
.94	10.737	.01232	.44355	.09259	.05572	-.00424	-.00072	-.00926	.41853	.17360	2.41083
.95	12.803	.01291	.54655	.09549	.05125	-.00596	-.00133	-.00706	.51142	.21534	2.37498
.96	14.736	.01498	.64295	.09993	.04953	-.00685	-.00238	-.00595	.59502	.26330	2.25980
.97	16.337	.01652	.74538	.10445	.04726	-.00559	-.00262	-.00797	.68122	.32007	2.12835
.98	17.337	.01765	.84867	.10642	.04426	-.00406	-.00273	-.01196	.76561	.38134	2.00770
.99	21.452	.02408	.92700	.10957	.03926	-.00327	-.00287	-.01489	.82271	.44101	1.86552
.99	22.374	.02443	.94166	.11163	.03228	-.00340	-.00372	-.01284	.82827	.46168	1.79406

RUN NO. 89/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CPL	CYN	CY	CL	CD	L/D
.901	-2.243	.00017	-.32979	.10019	.15773	.00790	.00600	-.01872	-.32562	.11302	-2.88105
.901	-.042	.00530	-.19559	.10028	.14033	.00737	.00503	-.01962	-.19551	.10042	-1.94691
.902	2.110	.00811	-.05718	.09958	.12016	.00590	.00438	-.00705	-.06081	.09741	-.60823
.903	4.315	.01025	.08435	.09841	.09861	.00403	.00318	-.01834	.07670	.10448	.73414
.901	6.504	.01038	.22551	.10129	.07895	.00101	.00194	-.01473	.21258	.12618	1.58468
.901	8.654	.01259	.15589	.10555	.05867	-.00335	.00040	-.01205	.33595	.15790	2.12762
.903	10.826	.01371	.41115	.10688	.04457	-.00475	-.00070	-.00991	.44662	.19422	2.29950
.901	12.395	.01551	.57566	.11037	.04446	-.00555	-.00119	-.01070	.53659	.23711	2.26307
.901	15.157	.01556	.67908	.11366	.04121	-.00417	-.00059	-.01196	.62377	.28673	2.17545
.903	17.278	.01632	.78233	.11660	.03820	-.00262	-.00125	-.01103	.71239	.34369	2.07275
.901	19.408	.01985	.89227	.11905	.03175	-.00115	-.00197	-.01234	.80158	.40961	1.95692
.901	21.675	.02432	.95031	.12272	.04448	-.00063	-.00189	-.01561	.84728	.46754	1.81220
.903	22.495	.02418	.97629	.12305	.03410	-.00060	-.00144	-.01804	.85493	.48721	1.75475



LA-48 8-FT TPT 680 RI-0892/139 CRB SPLIT ELEVON

(RH1011)

## PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -30.000 SDFLAP = .000  
 SPODRK = 25.000

RUN NO. 88/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.920	-2.246	.00054	-.33079	.10708	.16359	.00890	.00699	-.02144	-.32564	.11993	-2.71529
.922	-.051	.00392	-.19446	.10430	.14718	.00877	.00591	-.02259	-.19437	.10847	-1.79188
.920	2.136	.00991	-.09034	.10549	.12192	.00727	.00490	-.02300	-.05444	.10354	-.32582
.919	4.344	.01094	.09895	.10613	.09988	.00493	.00405	-.02134	.08863	.11317	.78323
.920	6.513	.01144	.22671	.10795	.08330	.00680	.00253	-.01722	.21301	.13287	1.60312
.919	8.687	.01284	.36109	.11004	.09556	-.00263	.00796	-.01375	.34033	.16331	2.08388
.920	10.849	.01458	.48786	.11246	.08140	-.00416	-.00921	-.01177	.45797	.20227	2.26414
.919	13.008	.01554	.59441	.11376	.03556	-.00370	-.00133	-.00945	.55335	.24463	2.26275
.921	15.189	.01561	.70949	.11843	.02692	-.00166	.00728	-.01434	.65368	.30019	2.17762
.919	17.328	.01593	.81572	.12103	.01651	-.00153	-.00164	-.01073	.74265	.39850	2.07156
.919	19.507	.01715	.91548	.12339	.01591	-.00091	-.00144	-.01087	.82173	.42201	1.94717
.919	21.646	.02340	.98993	.12596	.02775	-.00034	-.00194	-.01522	.87366	.48223	1.81169
.919	22.554	.02289	1.00615	.12894	.04130	-.00169	-.00251	-.01320	.87974	.50570	1.74206

RUN NO. 89/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.950	-2.232	.00076	-.34070	.11186	.18224	.00707	.00711	-.02196	-.33569	.13904	-2.48598
.932	-.042	.00344	-.20100	.12285	.19531	.00727	.00657	-.02412	-.20091	.12299	-1.63353
.951	2.159	.00435	-.04776	.12017	.12995	.00592	.00635	-.02584	-.05223	.11829	-.44172
.950	4.367	.00990	.10141	.11964	.10290	.00388	.00572	-.02324	.09201	.12701	.72440
.950	6.560	.01107	.24384	.12081	.07909	.00176	.00403	-.02113	.22844	.14787	1.54405
.931	8.737	.01212	.38495	.12228	.05251	-.00073	.00232	-.01749	.36131	.17933	2.01817
.931	10.902	.01189	.51864	.12238	.02700	-.00184	.00171	-.01493	.48613	.21827	2.22724
.950	13.102	.01275	.63701	.12286	.01930	-.00136	.00078	-.01285	.59237	.26406	2.24405
.931	15.268	.02400	.75990	.12623	.00248	-.00046	-.00091	-.01120	.69884	.32189	2.17419
.950	17.429	.01742	.87375	.12887	-.01659	-.00038	-.00120	-.00953	.79573	.38465	2.06586
.931	19.591	.01969	.98764	.13242	-.02099	.00032	-.00232	-.00933	.88676	.45591	1.94351
.931	21.777	.04339	1.07826	.13740	-.00741	.00218	-.00318	-.02222	.95034	.52762	1.80117
.933	22.719	.04448	1.10411	.13798	-.00845	-.00019	-.00457	-.02321	.96517	.53367	1.74321

LA40 TABULATED SOURCE DATA

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LA-40 8-FT TPT 640 RI-0898/139 CRB SPLIT ELEVON

(RH1011)

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = -20.000 ELV-RI = -20.000  
 ELV-RO = -30.000 BDFLAP = .000  
 SPOBRK = 25.000

RUN NO. 84/ 0

MACI	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.979	-2.216	.00150	-.32022	.14077	.17349	.00909	.00459	-.02699	-.31434	.13304	-2.05522
.980	-.004	.00387	-.17344	.14124	.14932	.00453	.00492	-.02943	-.17343	.14125	-1.22746
.980	2.193	.00790	-.02838	.14037	.12263	.00662	.00460	-.03159	-.03371	.13939	-.24147
.980	4.391	.00823	-.11602	.14146	.09683	.00474	.00751	-.02907	.10444	.14990	.69963
.979	6.596	.00827	.25414	.14244	.07203	.00267	.00557	-.02329	.24002	.17155	1.39918
.980	8.779	.00878	.40059	.14668	.04443	.00037	.00410	-.01971	.37351	.20609	1.81232
.979	10.969	.01112	.54330	.14734	.01498	-.00065	.00234	-.01597	.50730	.24841	2.04221
.980	13.143	.01545	.67045	.15046	-.00043	.00107	.00152	-.01734	.61905	.29908	2.06392
.979	15.332	.02063	.79480	.14970	-.01376	.00173	.00334	-.01801	.73079	.35559	2.05513
.979	17.504	.02739	.90912	.15398	-.02216	.00085	.00155	-.01324	.82764	.42035	1.94239
.980	19.667	.02943	1.02303	.15629	-.03033	.00067	.00224	-.01377	.91075	.49144	1.83307
.974	21.878	.02991	1.12736	.15614	-.02646	-.00006	.00131	-.01235	.94794	.56502	1.74854
.976	22.794	.01016	1.15655	.15412	-.01772	-.00016	.00153	-.01332	1.00644	.59022	1.70525

RUN NO. 81/ 0

MACI	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.001	-2.199	-.00422	-.24711	.16737	.15737	.00415	.00975	-.02621	-.24047	.17426	-1.57336
1.001	-.003	.00001	-.14949	.16710	.13377	.00738	.00956	-.02471	-.14944	.16711	-.89444
1.000	2.203	.00309	-.02557	.16826	.10347	.00341	.00703	-.02034	-.01204	.16792	-.07164
1.079	4.430	.00412	.13335	.17239	.07466	.00376	.00796	-.02694	.12163	.14233	.66710
1.079	6.604	.00442	.24927	.17406	.05325	.00241	.00943	-.02377	.24747	.20344	1.21379
1.079	8.793	.00304	.40611	.17397	.02460	.00082	.00575	-.02021	.37470	.23394	1.67207
1.080	11.006	.00502	.54924	.16996	.00744	-.00073	.00424	-.01061	.50276	.27003	1.05570
1.080	13.201	.00463	.66611	.16533	-.01351	-.00041	.00376	-.01474	.61071	.31324	1.04941
1.081	15.402	.00493	.78181	.16248	-.02412	.00134	.00394	-.01590	.71034	.36426	1.05077
1.082	17.547	.00431	.89391	.16390	-.03477	.00162	.00144	-.01200	.80260	.42634	1.04234

LA-48 8-FT TPT 640 RI-0999/139 CRB SPLIT ELEVON

(RH1012)

## PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = -20.000 SDFLAP = .000  
 SPOBRK = 25.000

RUN NO. 93/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.001	-2.097	.00419	-.14677	.06266	.03640	.00714	.00220	-.01262	-.14435	.06945	-2.65447
.002	.003	.00630	-.01794	.06432	.03504	.00700	.00212	-.01547	-.04794	.06432	-1.36369
.003	2.041	.00722	.00939	.06323	.03365	.00674	.00147	-.01607	.00704	.06332	.11145
.004	4.194	.00771	.11227	.05406	.03245	.00747	.00164	-.01627	.10772	.06611	1.62929
.005	6.292	.00774	.21774	.04446	.03257	.00773	.00134	-.01594	.21104	.07243	2.91419
.006	8.365	.00721	.31416	.03406	.03300	.00713	.00133	-.01456	.30926	.04394	3.64414
.007	10.474	.00594	.43437	.04033	.04221	.00930	.00216	-.01511	.42373	.11935	3.59034
.008	12.569	.00732	.54946	.04442	.03506	.01013	.00116	-.01437	.52597	.16319	3.22301
.009	14.679	.00717	.67729	.04636	.02600	.01144	.00794	-.01364	.64344	.21644	2.97233
.010	16.756	.00411	.74144	.03466	.01434	.01044	.00723	-.01294	.73244	.27774	2.63473
.011	18.465	.0102	.90767	.05421	.01074	.01174	-.00034	-.01467	.94139	.34474	2.44035

RUN NO. 94/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.001	-2.150	.00444	-.19164	.06754	.03363	.00792	.00336	-.01503	-.14901	.07472	-2.52934
.002	-.006	.00594	-.04196	.06931	.03922	.00693	.00329	-.01567	-.04196	.06932	-1.17494
.003	2.114	.00619	.02491	.06413	.03316	.00677	.00266	-.01696	.02234	.06901	.32425
.004	4.242	.00691	.14724	.06474	.04467	.00672	.00261	-.01754	.14203	.07560	1.47447
.005	6.451	.00932	.26592	.06433	.03496	.00701	.00193	-.01513	.25699	.09400	2.73393
.006	8.573	.00934	.37434	.06644	.03142	.00666	.00129	-.01315	.36415	.12253	2.97190
.007	10.722	.00737	.44294	.07112	.02827	.00624	.00112	-.01227	.46124	.15073	2.77247
.008	12.453	.00911	.54232	.07454	.02514	.00637	.00064	-.01045	.55114	.20225	2.72501
.009	15.076	.01021	.60090	.07942	.02239	.00623	.00016	-.01079	.64677	.25560	2.53036
.010	17.161	.01562	.42736	.04437	.00767	.01030	-.00049	-.01449	.76537	.32492	2.35615
.011	19.249	.01614	.92294	.04799	.00423	.00790	-.00066	-.01472	.94210	.34793	2.17473

# LAAS TABULATED SOURCE DATA

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LA-4A 9-FT TPT 640 RI-0998/139 CP2 SPLIT ELEVON

(RH1012)

## PARAMETRIC DATA

BETA = .000 ELV-L0 = .000  
 ELV-L1 = -10.000 ELV-R1 = -10.000  
 ELV-P0 = -20.000 DOFLAP = .000  
 SPODERK = 25.000

RUN NO. 91/ 0

WAOH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.90	-2.162	.00599	-20290	.07240	.07407	.00794	.00365	-.01554	-.19961	.04034	-2.49325
.90	-2.162	.00729	-20406	.07473	.06620	.00726	.00325	-.01639	-.04405	.07473	-1.12449
.90	2.151	.01027	.03545	.07417	.05724	.00603	.00239	-.01651	.03265	.07545	.43267
.90	4.322	.01123	.16412	.07373	.04519	.00333	.00199	-.01620	.15409	.04549	1.40771
.49	6.441	.01029	.29334	.07791	.03314	-.00090	.00096	-.01229	.27274	.10940	2.49312
.49	8.614	.00974	.39115	.08196	.02844	-.00203	.00021	-.00957	.37447	.13956	2.69324
.90	10.737	.01041	.44720	.08690	.02665	-.00101	-.00069	-.00734	.46242	.17630	2.62202
.49	12.806	.01116	.59629	.09454	.02294	.00006	-.00026	-.00964	.55170	.21725	2.53949
.49	15.069	.01344	.69344	.09321	.02020	.00550	-.00020	-.01207	.64541	.27030	2.34774
.49	17.221	.01541	.80854	.09771	.00997	.00616	-.00106	-.01149	.74337	.33270	2.23432
.49	19.374	.01734	.92047	.09941	.00426	.00764	-.00121	-.01330	.83521	.39356	2.09731
.90	21.499	.01973	1.01124	.10203	.00934	.00664	-.00221	-.01165	.90352	.46555	1.94077
.90	22.419	.01713	1.02274	.11311	.02367	.00404	-.00412	-.00435	.90612	.49536	1.66692

RUN NO. 92/ 0

WAOH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.90	-2.169	.00530	-18399	.04530	.07137	.01074	.00369	-.02164	-.18062	.09220	-1.95910
.90	.006	.00922	-.05635	.04779	.05664	.00996	.00321	-.02350	-.05636	.04774	-.64194
.90	2.209	.01094	.07632	.04762	.04204	.00813	.00459	-.02312	.07244	.09050	.00535
.90	4.363	.01054	.14725	.04935	.03864	.00062	.00264	-.01707	.17990	.10334	1.74096
.90	6.415	.01059	.30155	.05145	.02702	-.00243	.00149	-.01357	.20323	.12905	2.31271
.90	8.664	.01062	.44472	.05332	.01454	-.00193	.00094	-.01125	.34769	.15573	2.49392
.90	10.451	.01072	.55946	.05457	.01143	.00153	.00104	-.01143	.49162	.19459	2.52937
.90	13.013	.01190	.62461	.10141	.00447	.00416	.00035	-.01149	.51373	.23945	2.44615
.90	15.171	.01294	.74267	.10573	-.00444	.00510	.00099	-.01443	.64912	.29640	2.32492
.49	17.317	.01420	.85375	.10404	-.01519	.00460	-.00066	-.01072	.74206	.35730	2.19105
.49	19.474	.01477	.95494	.11025	-.01614	.00564	-.00144	-.01273	.86730	.42370	2.04694
.49	21.624	.01220	1.03944	.11419	-.00795	.00473	-.00264	-.01224	.92325	.49449	1.84446
.90	22.533	.02136	1.05723	.11454	.00102	.00334	-.00263	-.01145	.93263	.51095	1.62530

LA449 TABULATED SOURCE DATA

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LA-49 8-FT TPT 640 RI-0898/139 C08 SPL17 E10V0N

(RM1012)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-L1 = -10.000 ELV-R1 = -10.000  
ELV-RO = -20.000 BDFLAP = .000  
SPOERK = 25.000

RUN NO. 87/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CSL	CYN	CT	CL	CD	L/D
.920	-2.149	.00601	-1.19126	.09383	.04054	.00948	.00565	-.02199	-.14761	.10093	-1.45870
.919	.017	.00480	-.03223	.09352	.03915	.00456	.00553	-.02395	-.05225	.09551	-.54712
.920	2.221	.01099	.04159	.09347	.04155	.00613	.00455	-.02252	.07783	.09456	.74964
.919	4.343	.01115	.19821	.09605	.03649	-.00043	.00222	-.01870	.14429	.11077	1.69944
.919	6.344	.01065	.30410	.09777	.02759	-.00241	.00149	-.01344	.29495	.13226	2.23001
.920	8.706	.00919	.41636	.10127	.01431	-.00067	.00154	-.01239	.39624	.16313	2.42901
.920	10.473	.01079	.33523	.10406	.00533	.00132	.00102	-.01225	.50599	.20316	2.49061
.919	13.041	.01478	.64604	.10753	-.00622	.00427	-.00223	-.00597	.60599	.25072	2.41660
.920	15.212	.01263	.77374	.11027	-.01917	.00342	.00701	-.01094	.71770	.30942	2.31946
.919	17.361	.01674	.84954	.11252	-.03394	.00309	-.00160	-.00991	.81544	.37242	2.14725
.921	19.356	.01954	.96204	.11400	-.03557	.00371	-.00203	-.01124	.89643	.44025	2.03619
.919	21.654	.02336	1.03670	.11771	-.02144	.00494	-.00144	-.01534	.93466	.49939	1.47962
.917	22.543	.02151	1.04006	.12024	-.00960	.00191	-.00321	-.00946	.95106	.52343	1.40467

RUN NO. 86/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CSL	CYN	CT	CL	CD	L/D
.930	-2.135	.00331	-1.14666	.10704	.04704	.00914	.00605	-.02046	-.14254	.11396	-1.60183
.931	.024	.00731	-.09331	.10974	.06347	.00797	.00564	-.02299	-.09037	.10971	-.45906
.931	2.240	.00390	.00924	.10947	.04141	.00705	.00349	-.02451	.09492	.11324	.74964
.930	4.407	.00952	.21493	.10929	.02670	.00242	.00413	-.02015	.20944	.12379	1.69436
.931	6.599	.00915	.33564	.10931	.01462	.00110	.00253	-.01505	.32046	.14716	2.15034
.930	8.765	.00475	.46193	.11029	-.00312	.00240	.00149	-.01245	.43973	.17939	2.45122
.930	10.724	.00494	.59260	.11132	-.02035	.00264	.00174	-.01274	.55094	.21971	2.50754
.949	13.111	.01339	.70796	.11213	-.02929	.00345	-.00017	-.01063	.65725	.26422	2.45744
.932	15.296	.01409	.83766	.11748	-.03557	.00330	-.00077	-.01334	.77699	.33430	2.32421
.931	17.469	.01433	.99907	.11973	-.07546	.00234	-.00221	-.00491	.87490	.40210	2.15576
.949	19.620	.02220	1.03975	.12172	-.07140	.00291	-.00394	-.00717	.95293	.46991	2.03220
.930	21.426	.04420	1.14379	.12764	-.04956	.00630	-.00471	-.02149	1.01434	.54375	1.46546
.930	22.717	.04615	1.19975	.12932	-.03375	.00164	-.00731	-.01457	1.01976	.56734	1.79746

LA46 TABULATED SOURCE DATA

LA-46 8-FT TP 640 RI-0398/139 C80 SPLIT ELEVON

(RH10.2)

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = -10.000 ELV-RI = -10.000  
ELV-RO = -20.000 SDFLAP = .000  
SPDRK = 25.000

MACH	ALPHA	BETA	CN	CA	CLM	CB	CYN	CY	CL	CD	L/D
.976	-2.145	.00105	-1.9175	.12398	.09394	.00918	.00748	-.02329	-.14695	.13107	-1.42631
.981	.054	.00437	-.03540	.12951	.07106	.00791	.00757	-.02633	-.05552	.12945	-.42886
.986	2.249	.00572	.04301	.12451	.04914	.00704	.00747	-.02695	.07791	.13167	.99167
.990	4.430	.00632	.21745	.12794	.02993	.00435	.00823	-.02372	.20693	.14426	1.43445
.993	6.815	.00746	.34374	.13096	.01149	.00211	.00424	-.01895	.32634	.16967	1.92357
.995	6.796	.00742	.47574	.13359	-.01124	.00351	.00319	-.01544	.44971	.20477	2.19619
.996	10.998	.01029	.60571	.13513	-.03149	.00351	.00273	-.01436	.56481	.24820	2.29174
.991	13.154	.01569	.73953	.13935	-.03282	.00417	.00590	-.01539	.64439	.30403	2.26423
.991	15.369	.01477	.87252	.14354	-.06724	.00359	-.00920	-.01469	.80327	.36984	2.17511
.996	17.315	.01241	.94431	.14435	-.07701	.00205	.00024	-.01145	.89517	.43409	2.36220
.990	19.725	.01161	1.10462	.14692	-.04663	.00244	.00013	-.01009	.94954	.51299	1.92496
.976	21.447	.01440	1.19350	.14527	-.03351	.00244	-.00021	-.01164	1.03245	.57952	1.81674

MACH	ALPHA	BETA	CN	CA	CLM	CB	CYN	CY	CL	CD	L/D
.981	-2.122	-.00017	-.15354	.14642	.07104	.00440	.00792	-.02567	-.14401	.15201	-.97369
1.041	.063	.00364	-.02595	.14712	.03177	.00796	.00779	-.02603	-.02611	.14709	-.17751
1.040	2.267	.00476	.17425	.14934	.02941	.00765	.00769	-.02654	.1034	.15338	.67235
1.040	4.470	.00559	.23931	.15193	.07674	.00324	.00667	-.02412	.22674	.17714	1.33267
1.041	6.899	.00562	.36051	.15224	-.01000	.00334	.00934	-.01924	.34543	.19302	1.76364
1.040	8.424	.00756	.44257	.15413	-.02949	.00410	.00344	-.01724	.45322	.22633	2.07243
1.040	11.019	.00704	.561	.15321	-.04907	.00439	.00372	-.01430	.56516	.26614	2.12356
1.041	13.234	.00419	.73296	.15271	-.06037	.00419	.00275	-.01439	.67454	.31645	2.14421
1.041	15.444	.00222	.85101	.15334	-.07207	.00462	.00243	-.01427	.77934	.37465	2.04030
1.040	17.623	.01244	.96476	.15756	-.08188	.00312	.00032	-.01053	.87174	.44224	1.97127
1.074	19.413	.01457	1.07171	.16225	-.09429	.00363	-.00004	-.01124	.97209	.52267	1.89946

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LA-48 3-FT TPT 680 RL-0498/139 CRD SPLIT ELEVON

TH010131

## PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-HI = .000 ELV-RI = .000  
 ELV-RO = -10.000 DOFLAP = .000  
 SPODBK = 25.000

TURN NO. 37/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.045	.00487	-.09740	.06291	.01455	-.00690	-.00056	-.00539	-.09510	.06624	-1.43557
.001	.030	.00669	-.07430	.06450	.01354	-.00636	-.00092	-.00719	-.06433	.05450	-.06716
.001	2.130	.00725	.09415	.06260	.01325	-.00690	-.00145	-.00613	.09176	.06606	1.39909
.000	4.220	.00795	.19303	.03699	.01265	-.00729	-.00179	-.00820	.19992	.07009	2.66122
.000	6.309	.00754	.30291	.04792	.01094	-.00929	-.00224	-.00399	.29590	.08092	3.65549
.000	8.411	.00640	.41626	.03732	.00922	-.00999	-.00243	-.00207	.40632	.09780	4.15439
.000	10.517	.00595	.52672	.04814	-.00676	-.00776	-.00191	-.00174	.50909	.14348	3.34824
.000	12.599	.00492	.64519	.05075	-.01193	-.00939	-.00763	-.00763	.61959	.19024	3.25160
.000	14.714	.00530	.77147	.05239	-.02479	-.00969	-.00236	-.00207	.73247	.24662	2.97163
.000	16.809	.00434	.89581	.06010	-.03692	-.00944	-.00222	-.00794	.83154	.31399	2.64835
.001	18.924	.00646	1.01471	.05562	-.04241	-.00695	-.00220	-.00326	.94095	.39453	2.44673

LA-48 8-FT TPT 680 RL-0498/139 CRD SPLIT ELEVON

TH010141

## PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
 ELV-HI = .000 ELV-RI = .000  
 ELV-RO = -20.000 DOFLAP = .000  
 SPODBK = 25.000

TURN NO. 99/ 0

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.000	-2.077	.00339	-.14433	.06634	.01714	.00720	-.00110	-.00448	-.14193	.07153	-1.94277
.001	.024	.00710	-.04262	.06924	.01424	-.00677	-.00141	-.00901	-.04265	.06922	-.62515
.000	2.112	.00934	.05392	.06663	.03275	-.00640	-.00190	-.00715	.05143	.06937	.75004
.000	4.193	.00924	.15310	.07057	.03207	-.00592	-.00219	-.00753	.14123	.07200	2.05076
.000	6.300	.00941	.29920	.05195	.03279	-.00565	-.00232	-.00590	.25094	.07997	3.13796
.000	8.399	.00902	.36960	.04156	.03243	-.00593	-.00233	-.00590	.33940	.09496	3.77930
.000	10.476	.00995	.48090	.05177	.01431	-.00196	-.00122	-.00909	.46297	.13926	3.34939
.000	12.591	.00576	.59682	.05592	.01216	-.00312	-.00237	-.00713	.56035	.18236	3.07274
.000	14.704	.00906	.70515	.05662	.00993	-.00795	-.00270	-.00796	.66769	.23375	2.93635
.000	16.737	.00621	.81746	.06265	-.00779	-.00779	-.00270	-.00779	.76469	.29569	2.59622
.001	18.990	.00739	.94974	.05999	-.01143	-.00621	-.00299	-.00297	.87922	.36391	2.41327

LA49 TABULATED SOURCE DATA

LA-48 9-FT TPT 680 RI-0898/139 CRB SPLIT ELEVON

(RH1015)

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PARAMETRIC DATA

BETA = .000 ELV-LO = -30.000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = -30.000 DDFLAG = .000  
 SPOPRK = 25.000

RUN NO. 99/ 0

WACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.599	-2.102	.00652	-.19817	.07439	.05155	-.00730	-.00176	-.00418	-.19331	.04161	-2.39329
.602	-.010	.00403	-.09248	.07620	.03645	-.00725	-.00201	-.00555	-.09248	.07622	-1.21311
.601	2.092	.00911	.01231	.07405	.05195	-.00700	-.00233	-.00620	.00960	.07445	.12436
.602	4.188	.00969	.11793	.06874	.04974	-.00710	-.00264	-.00608	.11260	.07717	1.45907
.601	6.306	.00915	.22955	.05921	.04603	-.00743	-.00277	-.00351	.22066	.08395	2.62446
.600	8.375	.00732	.34175	.04974	.04157	-.00719	-.00260	-.00292	.33746	.09499	3.34269
.599	10.490	.00657	.48983	.05421	.03106	-.00534	-.00205	-.00353	.47079	.14230	3.30051
.600	12.493	.00523	.59169	.05844	.00949	-.00420	-.00211	-.00299	.60374	.15003	3.33567
.599	14.674	.00613	.69365	.06254	.00097	-.00473	-.00213	-.00279	.65131	.23520	2.76916
.600	16.761	.00630	.80009	.06763	.00332	-.00499	-.00225	-.00216	.74691	.23549	2.72072
.600	18.872	.00727	.91216	.06516	.00333	-.00441	-.00239	-.00162	.84111	.35512	2.35530

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